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AN INTERDISCIPLINARY JOURNAL OF PUBLIC POLICY ANALYSIS

ECONOMIC FREEDOM AND THE WEALTH OF NATIONS

**James Gwartney,
Randall Holcombe,
and Robert Lawson**

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Wealth of Nations

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BOOK REVIEWS

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EDITOR'S NOTE

The papers in this issue of the *Cato Journal* were originally presented at the 23rd Annual Conference of the Association of Private Enterprise Education, which was held in Dallas on April 5–7, 1998. The topic of that conference, “Economic Freedom of the World: Property Rights, Markets, and the Quality of Life,” is one that has long interested the Cato Institute. Thus, when Jim Gwartney, vice president of APEE, first suggested that selected papers from the Dallas conference be used in the *Journal*, I readily agreed. He deserves high marks for helping organize the conference and assisting in the review process. Special thanks also go to J. R. Clark, secretary/treasurer of APEE, and to the John M. Olin Foundation for its financial support of the APEE conference.

—J. A. Dorn

THE SCOPE OF GOVERNMENT AND THE WEALTH OF NATIONS

*James Gwartney, Randall Holcombe, and
Robert Lawson*

Pushed along by the failures of socialism, the idea that a market economy provides the foundation for prosperity has gained widespread acceptance in recent years. Many countries have moved toward an environment more consistent with economic freedom and the smooth operation of a market economy. Trade barriers have been reduced, monetary systems have become more stable, marginal tax rates have been lowered, and various price controls—including exchange and interest rate controls—have been liberalized or eliminated.¹ Yet in one critical dimension—the size of government—most nations have moved in the other direction. Over the past several decades, government expenditures as a share of GDP have been rising, resulting in more resource allocation through government.

Table 1 illustrates the growth of government in countries that are members of the Organization for Economic Cooperation and Development (OECD). Data for the 1960–96 period are shown for all 23 nations that have been members throughout the period. Measured as a share of GDP, total government expenditures have grown substantially in every one of the OECD countries. In 1960 government

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¹For a discussion of the multifaceted nature of economic freedom and evidence that there have been significant recent moves toward economic liberalism in several areas, see Gwartney, Lawson, and Block (1996). Economic theory indicates that such liberalization will promote economic growth (see Barro 1996; Kreuger 1993, 1997; Gwartney and Lawson 1997; Scully 1988; and Torstensson 1994).

TABLE 1
THE SIZE OF GOVERNMENT IN OECD COUNTRIES, 1960–96

Total Government Outlays as a Percentage of GDP						
Country	1960	1970	1980	1990	1996	Increase 1960–96
Australia	21.2	25.5	34.0	37.7	37.5	16.3
Austria	35.7	39.2	48.9	49.3	52.7	17.0
Belgium	34.5	36.5	50.7	54.6	54.5	20.0
Canada	28.6	35.7	40.5	47.8	46.4	17.8
Denmark	24.8	40.2	56.2	58.6	60.8	36.0
Finland	26.6	31.3	36.6	46.8	59.4	32.8
France	34.6	38.9	46.1	49.9	54.7	20.1
Germany	32.4	38.6	48.3	45.7	56.0	23.6
Greece	17.4	22.4	30.5	49.6	49.4	32.0
Iceland	28.2	29.6	32.2	39.9	37.3	9.1
Ireland	28.0	39.6	50.8	40.9	37.7	9.7
Italy	30.1	34.2	41.9	53.8	52.7	22.6
Japan	17.5	19.3	32.6	31.9	36.9	19.4
Luxembourg	30.5	33.1	54.8	45.5	49.3	18.8
Netherlands	33.7	46.0	57.5	57.5	58.1	24.4
New Zealand	27.7	34.4	47.0	50.0	42.3	14.6
Norway	29.9	41.0	48.3	51.3	46.4	16.5
Portugal	17.0	21.6	25.9	41.9	46.0	29.0
Spain	13.7	22.2	32.9	43.0	45.4	31.7
Sweden	31.0	43.7	61.6	60.8	66.1	35.1
Switzerland ^a	17.2	21.3	29.3	30.9	36.9	19.7
United Kingdom	32.2	39.2	44.9	42.3	43.7	11.5
United States	28.4	32.5	33.7	34.8	34.6	6.2
Average	27.0	33.3	42.8	46.3	48.0	21.0

^aThe data for Switzerland are for current government expenditures only.

SOURCES: *OCED Economic Outlook* (December 1997); *OECD Historical Statistics* (various issues); *IMF Government Finance Statistics Yearbook*, 1994 (for 1990 Luxembourg data); *New Zealand Official Yearbook* (various issues); and *Economic Report of the President* (February 1997).

expenditures in this group averaged 27 percent of GDP. By 1996 they had grown to 48 percent of GDP. This is a staggering increase, especially when one considers the conservative nature of the measure employed. If government expenditures had been measured in constant purchasing power units, or on a per capita basis, the increases in the size of government would have been much greater.

This increase in government expenditures reflects a substantial broadening in the scope of government beyond its traditional functions. Economic theory provides some basis for belief that certain government activities—for example, the protection of property rights, the provision of a legal structure for settling disputes, and the allocation of funds for investment in infrastructure and human capital—may enhance economic growth. However, as we will show, the growth of government in recent decades has not been in those core areas. On the contrary, government has expanded into activities the legitimacy of which is highly questionable. As this has happened, economic growth has slowed. The evidence examined below illustrates that there is a persistent robust *negative* relationship between the level (and the expansion) of government expenditures and the growth of GDP.² Our findings indicate that a 10 percent increase in government expenditures as a share of GDP results in approximately a 1 percentage point reduction in GDP growth.

Expenditures on the Core Functions of Government

Economic theory indicates that various functions of government—we will refer to them as core functions—can improve economic efficiency and thereby enhance economic growth. What are these core functions? While there is some room for debate concerning the precise activities that comprise the core functions, two general categories emerge: (1) activities that protect persons and their property from plunder, and (2) provision of a limited set of goods that for various reasons markets may find it difficult to provide.³

Long ago, Thomas Hobbes (1651) described life without government as “nasty, brutish, and short” and argued that the law and order provided by government was a necessary component of civilized life.⁴

²The impact of government spending on economic growth has been addressed by Barro (1989), Barth and Bradley (1987), Crier and Tullock (1987), Grossman (1988), Kormendi and Meguire (1985), Landau (1983, 1986), Peden (1991), Peden and Bradley (1989), and Scully (1992, 1994).

³Buchanan (1975: 95) refers to these two functions as the protective state and the productive state. In his discussion of the proper role of government, Adam Smith ([1776] 1937: 653–81) listed three factors: (1) “protecting the society from the violence and invasion of other independent societies,” (2) “protecting, as far as possible, every member of the society from the injustice or oppression of every other member,” and (3) “erecting and maintaining those public institutions and public works, which, though they be in the highest degree advantageous to a great society, are however of such a nature that the profit could never repay the expense to any individual or small group of individuals.” This list is also reflective of our core functions of government.

⁴Not everyone would agree with Hobbes, of course. Rothbard (1973) provides an interesting argument that the private sector could more effectively undertake all of the functions normally done by government.

Viewed from another angle, economic theory indicates that secure property rights, enforcement of contracts, and the operation of a court system to resolve disputes provide the foundation for the smooth operation of a market economy.⁵ These activities reflect the protective functions of government. A stable monetary regime can also facilitate the operation of markets and business planning across time periods. In addition, government provision of some public goods, such as roads and national defense to protect the citizenry from intrusions by foreigners, may also promote economic growth. While governments may have a comparative advantage in the provision of this legal and physical infrastructure, it should be noted that market supply of those services is not uncommon. As Bruce Benson (1990) has shown, private sector actions often create legal structures and provide for their enforcement. Private police and security guards outnumber public police in the contemporary United States, and many people choose private arbitration for dispute resolution despite the availability of public courts. The private sector also successfully produces physical infrastructure and one might question, in the post-cold war era, the magnitude of military expenditures to defend a nation's borders.

Despite these reservations, we will assume all of these activities are core functions of government. We also include education, even though it does not exhibit the characteristics of a public good and the private sector has shown itself quite capable of providing high-quality education. Table 2 presents data for total government spending on all of these activities at all levels of government—federal, state, and local—in the United States for various years since 1960. Protection of persons and property—including expenditures on police, courts, and the operations of a penal system—consumed only 1.5 percent of GDP in 1992, up from 0.64 percent in 1960. Expenditures on national security (including international affairs) summed to 5 percent of GDP in 1992, down substantially from 9.3 percent in 1960. Government expenditures on education totalled 5.67 percent of GDP in 1992. Government expenditures on physical infrastructure (highway, sewage, sanitation, and the environment) and the operational costs of the Federal Reserve System are also included. Even with this generous concept of core functions, total government spending on these items summed to less than 15 percent of GDP in 1992. They were only

⁵See Knack and Keefer (1995) and Keefer and Knack (1997) for evidence that a legal system that protects property rights, enforces contracts, and relies on rule-of-law principles for the settlement of disputes among parties enhances economic growth. Also see Bauer (1972) and North (1990) for a comprehensive analysis of how the development of property rights and legal institutions has influenced economic performance.

TABLE 2
U.S. FEDERAL, STATE, AND LOCAL GOVERNMENT
EXPENDITURES FOR SELECT BUDGET CATEGORIES AS A
PERCENTAGE OF GDP, 1960-92

Budget Categories	1960	1970	1980	1990	1992
Protection of Persons and Property					
Police Protection	0.39	0.49	0.54 ^b	0.55	0.66
Corrections	0.14	0.16	0.24 ^b	0.43	0.50
Judicial	0.11	0.11	0.13 ^b	0.16	—
Other Criminal Justice System Activities	na ^a	0.06	0.11 ^b	0.14	0.34 ^c
Subtotal	0.64	0.82	1.02 ^b	1.28	1.50
National Security					
National Defense	8.72	7.75	4.81	5.21	4.78
International Affairs	0.58	0.34	0.46	0.24	0.26
Subtotal	9.30	8.09	5.27	5.45	5.04
Education					
Elementary and Secondary Education	2.88	3.62	3.34	3.52	3.67
Higher Education	0.61	1.06	1.22	1.28	1.35
Other Education	0.20	0.70	0.61	0.52	0.65
Subtotal	3.69	5.38	5.17	5.32	5.67
Highways	1.82	1.61	1.21	1.08	1.08
Sewage, Sanitation, and Environmental Protection	0.53	0.60	0.97	0.80	0.85
Federal Reserve System: Expenses	—	0.03	0.03	0.02	0.02
TOTAL	15.98	16.53	13.67	13.95	14.16

^aLegal representation and other related activities were not counted toward criminal justice system expenditures prior to 1969.

^bThese percentages were calculated from 1979 expenditures and GDP because detailed data were not collected in 1980.

^cJudicial, legal, and other activities were combined into a single category in the 1992 data. SOURCES: Bureau of the Census, *Statistical Abstract of the United States* (various issues); Board of Governors of Federal Reserve System, *1996 Annual Report*; and *Economic Report of the President* (February 1997).

slightly higher in 1960 and 1970. As Table 1 shows, total government expenditures in the United States are currently about 35 percent of GDP, suggesting that they are more than twice as high as would be necessary to provide for the core functions of government.

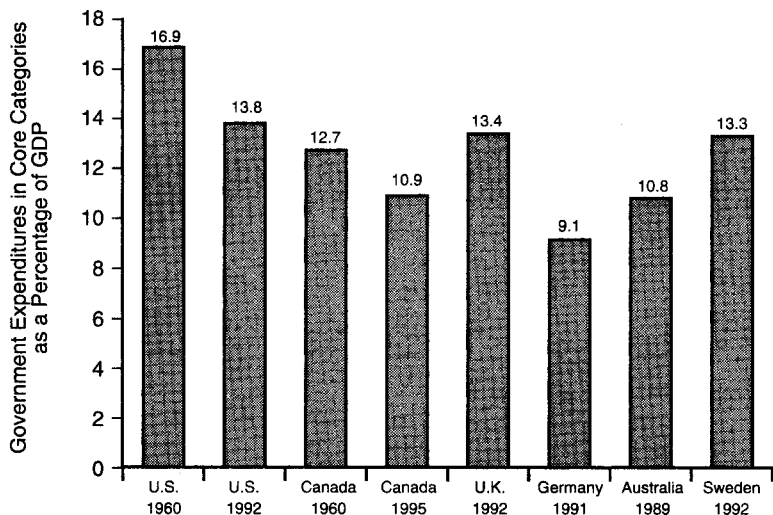
Figure 1 provides data from other developed economies for various years and tells a similar story. The categories are slightly different, due to data availability, but the message is the same: The core functions of government can be financed with spending of less than 15 percent of GDP. Even countries like Sweden, with very large public sectors, do not spend more than 15 percent of GDP in these core areas.

Expansion of Government beyond the Core Functions

While economic theory suggests that government expenditures on core functions may enhance growth, it also indicates that expansion of government much beyond those core activities will exert a negative impact on the economy. There are several reasons why this is true. First, the higher taxes and/or additional borrowing required to finance government expenditures impose an excess burden on the economy. As government expands and taxes increase, the economic loss emanat-

FIGURE 1

CORE GOVERNMENT EXPENDITURES AS A SHARE OF GDP



NOTES: The core categories are: (1) public order and safety, (2) national defense, (3) education, and (4) transportation and communication. Many would also include expenditures on the operation of a central banking system, sanitation, and environmental protection. Since these figures were not available for all countries, we did not include them here. In the United States and Canada, government expenditures in these two additional areas were approximately 1 percent of GDP. Government expenditures in core categories have been between 9 percent and 14 percent of GDP in major OECD countries in recent years.

ing from the excess burden of taxation increases more than proportionally.⁶ Even if the productivity of government expenditures did not decline, the increasing costs of higher taxes (and additional borrowing) would eventually overwhelm the benefits of additional government spending.

Second, as government grows, its productivity will decline. Government expenditures that protect individuals and their property and provide for the smooth operation of a market economy may yield a high rate of return. As government expands into areas such as the provision of infrastructure and education, the returns may still be attractive. However, as government continues to grow relative to the market sector, diminishing returns will set in. Eventually, as more and more expenditures are channeled into activities for which government is ill suited, negative returns will set in and economic growth will be retarded.⁷

Third, the political process inhibits the entrepreneurship that drives economic growth. To a large degree, growth is a discovery process. As entrepreneurs discover new and improved technologies, better methods of production, and opportunities that were previously overlooked, they are able to combine resources into goods and services that are more highly valued (Kirzner 1973, 1997; Schumpeter 1912; and Holcombe 1998). This is the central element of wealth creation and growth. While markets encourage alertness and impose swift and sure punishment on those who make bad decisions, adjustment to change is much slower in the public sector. By way of comparison with markets, the required time for weeding out errors (for example, bad investments) and adjustments to changing circumstances, new information, and improved technologies is more lengthy for governments. Thus, expansion of government relative to the market sector slows this important source of economic growth.

Fourth, as government grows, it invariably becomes more heavily involved in the redistribution of income and regulatory activism. In turn, these activities will encourage individuals to seek personal income via government favors rather than through production in exchange for income. As this happens, resources are shifted away from wealth-creating activities toward the pursuit of wealth transfers. This shift

⁶Browning (1987) was one of the first to document the magnitude of the marginal excess burden accompanying the tax levels currently imposed in the United States. His estimates indicate that the deadweight loss of an additional dollar of tax revenue is between 30 cents and 50 cents. See also Crook (1997: S18).

⁷Holcombe (1995) suggests that many activities normally considered appropriate for government would be better performed by the market.

will retard economic growth and lead to income levels well below the economy's potential.⁸

A fundamental model of economic growth developed by Robert Solow (1956) suggests that while some economies may be wealthier than others, in the long run they should all grow at the same rate. More recent work has suggested that not only do economies actually have substantially different growth rates over lengthy time periods (Quah 1996, Gwartney and Lawson 1997), there are also good theoretical reasons for believing that countries can maintain the different rates (Lucas 1988, Romer 1990). This issue is important because if long-run growth rates across countries are all the same (or approximately the same), the long-term consequences of economic policies that impede growth are less severe. This study will examine the issue empirically by looking at how the size of government has affected economic growth.

Size of Government and Growth: OECD Countries

Our analysis indicates that even though government expenditures on core functions will initially promote growth, there is good reason to believe that additional spending beyond the core areas will impede efficiency and retard economic growth.⁹ We now turn to an empirical investigation of this issue.

Compared to most other countries around the world, the institutional arrangements and income levels of the 23 long-term OECD members are relatively similar. Politically, all are currently stable democracies. Their legal structures reflect a commitment to the rule of law. Monetary arrangements have been stable enough to avoid hyperinflation during the post-World War II era. In the area of international trade, OECD members have been at the forefront of those promoting more liberal trade policies within the framework of GATT and the World Trade Organization. Yet, despite their similarities in many areas, the size of government as a share of the economy has varied substantially among OECD countries (and across time periods). This section examines the effect of different levels of government expenditures on the economic growth in these countries.

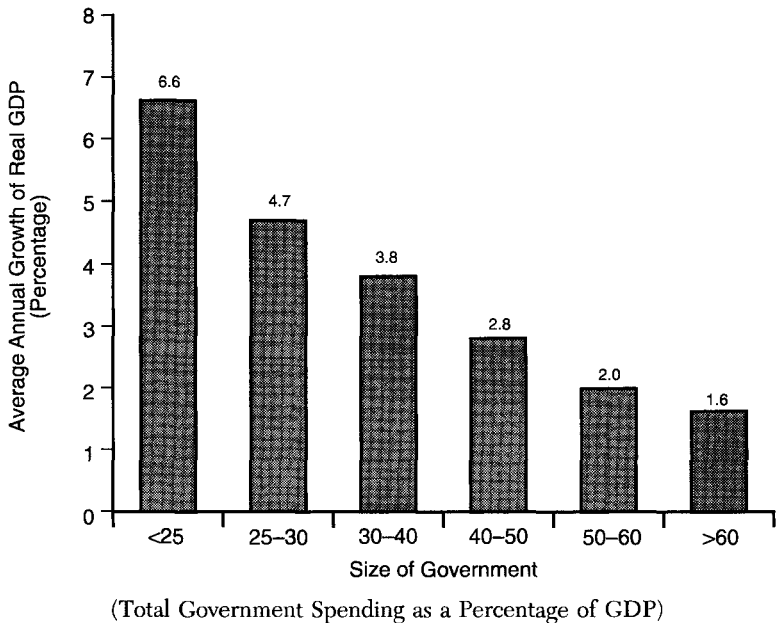
⁸Economists use the term "rent seeking" to describe the actions of individuals and groups that pursue personal income via income transfers and other government favors (rather than through production in exchange for income). See Tullock (1967) and Kreuger (1974) for additional details and analysis of the harmful side effects of rent seeking.

⁹See Barro (1990) for the development of a formal model with the characteristics we have outlined here.

Figure 2 presents a bar graph showing the relationship between the size of government and the average year-to-year growth rate of real GDP. An observation consists of the size of government for a country and its GDP growth rate during that year. Therefore, the total number of observations is 851, reflecting the 37 years of the time period (1960–96) and the 23 countries included in the analysis. In total, there were 81 cases during the 1960–96 period where a nation had government expenditures of less than 25 percent of GDP.¹⁰

FIGURE 2

SIZE OF GOVERNMENT AND THE ANNUAL GROWTH OF REAL GDP FOR OECD COUNTRIES, 1960–96



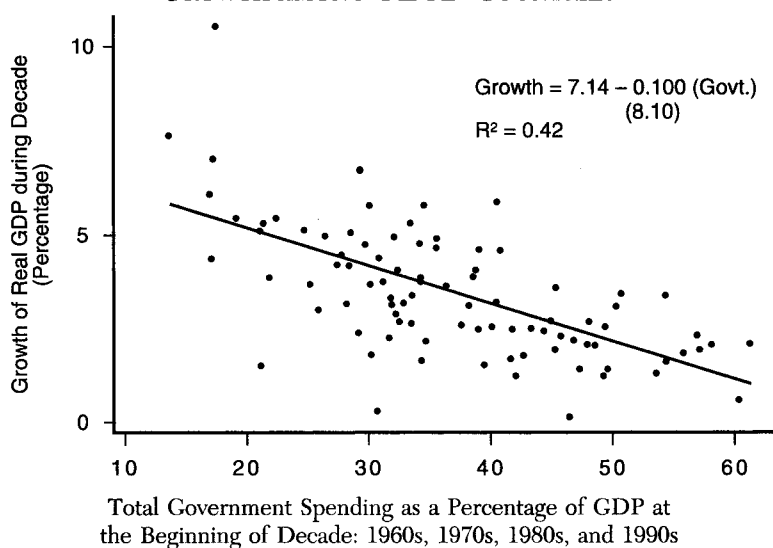
¹⁰Throughout this paper, total government expenditures as a share of GDP are used to measure the size of government. Total government expenditures include spending on government consumption, transfers and subsidies, net interest on outstanding debt, and capital goods. Previous cross-country studies have generally used government consumption (or central government expenditures) as a share of GDP to measure the size of government. While those figures are easier to obtain and available for more countries, they are often highly misleading. The government consumption figures substantially understate the size of government for countries with either (a) large transfer and subsidy sectors or (b) a high level of government investment. Similarly, the central government figures will understate the size of government for countries (for example, United States and Switzerland) where substantial expenditures are undertaken at lower levels of government. Thus, the total government expenditure figure is both a more accurate and more comprehensive indicator of government size.

Countries in that category averaged a GDP growth rate of 6.6 percent. As the size of government increased, the average growth rate persistently fell. When the size of government exceeded 60 percent of GDP, the average growth of real GDP was an anemic 1.6 percent. The data clearly illustrate an inverse relationship between the year-to-year growth of real GDP and the size of government in OECD countries during the 1960–96 period.

Figure 3 examines the relationship between the size of government and economic growth over a more lengthy time period. The size of government at the beginning of a decade is measured on the x-axis, while growth of real GDP during the decade is recorded on the y-axis. The figure contains four dots for each of the 23 OECD members—one for each of the four decades—for a total of 92 dots. As the plot illustrates, there is a clearly observable negative relationship between the size of government and long-term growth of real GDP. The line drawn through the plotted points is the least-squares regression line showing the relationship that best fits the data. The slope of the line indicates that a 10 percentage point increase in government

FIGURE 3

HIGHER GOVERNMENT SPENDING REDUCES ECONOMIC GROWTH AMONG OECD COUNTRIES



NOTE: These data indicate that a 10 percentage point increase in government expenditures as a share of GDP reduces the annual rate of growth by 1 percentage point.

expenditures as a share of GDP leads to approximately a 1 percentage point reduction in economic growth. The R-squared of .42 indicates that government spending alone explains about 42 percent of the differences in economic growth among OECD nations during the sample period.

Looking at the regression line in Figure 3, government expenditures of 20 percent of GDP are associated with a decade-long average annual growth rate of approximately 5 percent, while government expenditures of about 45 percent are associated with only half as much economic growth. Among these countries, a 25 percent increase in the size of government as a share of GDP retarded the annual rate of economic growth by approximately 2.5 percent. This evidence indicates that big government imposes a heavy penalty in the form of a lower rate of economic growth.¹¹

Several other things are worth noting about Figure 3. First, although in theory government expenditures could be too low if they were insufficient to finance the core activities of government, there is no evidence in Figure 3 that any government actually spent so little that the performance of the economy was harmed. There are six observations for nations with government expenditures as a percentage of GDP well below 20 percent. Of these six observations, five lie above the "best fit" line, and the remaining point is only slightly below. The empirical evidence indicates that all of these countries had government expenditures that exceeded the amount necessary to maximize economic growth.

The OECD countries represented in Figure 3 are developed economies with relatively high per capita incomes. With the possible exception of Japan, none are "growth miracles"—less developed economies that might have high rates of growth because their current level of income is relatively low. Japan did register very high growth rates for several decades. But even here there is a revealing story. At the beginning of the 1960s, the total expenditures of the Japanese government were only 17.5 percent of GDP and they averaged only 22.0 percent of GDP during the decade. With that environment, the Japanese economy registered an average annual growth rate of 10.6 percent

¹¹Increases in government expenditures, even expenditures on government consumption, do not necessarily mean a proportional increase in the "volume" of goods supplied by the government. Government subsidies may simply increase the prices of privately supplied goods, without exerting much impact on the quantity produced. When goods are supplied by government enterprises, greater expenditures may merely reflect inefficiency and higher cost. Interestingly, this latter factor actually enlarges GDP. To the extent these factors are important, the real GDP figures overestimate the growth rates of countries with substantial increases in the size of government.

in the 1960s. During the 1960s, the Japanese economy fit the small government, high growth mold. Over the next three decades, the Japanese government grew steadily; by 1996, government spending had soared to 36.9 percent of GDP. At the same time, Japan's growth rate moved in the opposite direction, falling to 5.4 percent in the 1970s, 4.8 percent in the 1980s, and sagging to 2.2 percent in the 1990s. The growth of government in Japan has brought with it a slowdown in the rate of economic growth.

Additional insights on the relationship between the size of government and economic growth can be gleaned from comparisons between OECD members with large increases in government expenditures and those with small increases. The size of government as a share of GDP rose in all OECD countries between 1960 and 1996. However, there was substantial variation. The top part of Table 3 shows data for those countries with the smallest increases in size of government as a share of GDP, while the bottom portion of the table presents the figures for those with the largest increases. The bottom row of Table 3 indicates the average for all 23 OECD members.

In five OECD countries (United States, Iceland, United Kingdom, Ireland, and New Zealand), government's share of GDP increased by less than 15 percentage points. As a share of GDP, the average size of government for this group rose from 28.9 percent in 1960 to 39.1 in 1996, an increase of 10.2 percentage points. In contrast, government expenditures increased by more than 25 percent of GDP in six OECD countries (Spain, Portugal, Greece, Finland, Sweden, and Denmark). The size of government in those six countries averaged 54.5 percent of GDP in 1996, a dramatic increase from the 21.8 percent figure for 1960.

The right side of Table 3 shows the annual growth rates of real GDP at the beginning (1960–65) and ending (1990–96) of the period for both the countries with “slow” and “rapid” expansion in the size of government. Both groups experienced increases in the size of government and reductions in economic growth. However, the growth rate reductions were substantially greater for the countries with the largest expansion in the size of government. The reduction in the average growth rate of real GDP was 5.2 percentage points for the rapid expansion in government group compared to an average decline of 1.6 percentage points for those with the least increase in the size of government. The reduction in the growth rate of every nation in the “big growth of government” group exceeded the OECD average (bottom line of table). In contrast, each country in the top group—those with the least expansion in government—registered a below average reduction in growth. Moreover, every nation in the bottom

TABLE 3

THE GROWTH RATE OF REAL GDP IN THE 1990s COMPARED TO 1960-65, ACCORDING TO INCREASES IN THE SIZE OF GOVERNMENT BETWEEN 1960 AND 1996: OECD COUNTRIES

	Govt. Spending as a Percentage of GDP			Growth Rate of Real GDP		
	1960 (1)	1996 (2)	Change (3)	1960-65 (4)	1990-96 (5)	Change (6)
Countries with Smallest Increases in Size of Govt.						
United States	28.4	34.6	6.2	4.4	2.2	-2.2
Iceland	28.2	37.3	9.1	4.5	1.5	-3.0
Ireland	28.0	37.7	9.7	4.1	5.9	1.8
United Kingdom	32.2	43.7	11.5	3.5	1.2	-2.3
New Zealand	27.7	42.3	14.6	5.0	2.5	-2.5
Average	28.9	39.1	10.2	4.3	2.7	-1.6
Countries with Largest Increases in Size of Govt.						
Portugal	17.0	46.0	29.0	6.5	1.7	-4.8
Spain	13.7	45.4	31.7	8.5	1.8	-6.7
Greece	17.4	49.4	32.0	7.2	1.2	-6.0
Finland	26.6	59.4	32.8	5.6	0.0	-5.6
Sweden	31.0	66.1	35.1	4.9	0.6	-4.3
Denmark	24.8	60.8	36.0	5.9	2.0	-3.9
Average	21.8	54.5	32.7	6.4	1.2	-5.2
All OECD Countries						
Average	27.0	48.0	21.0	5.5	1.9	-3.6

SOURCES: Derived from *OECD Historical Statistics and OECD Economic Outlook*.

group had a larger reduction in growth than any of the nations in the top group.

It is interesting to note that in 1960 government expenditures as a share of GDP for every country in the top part of Table 3 exceeded the OECD average of 27 percent, and their average GDP growth rate of 4.3 percent was below the OECD average (5.5 percent). The situation was exactly the opposite for this same set of countries in the 1990s. By the 1990s, the ratio of government expenditures to GDP of the countries in the top group was below the OECD average, while their growth rates were above the average. Just the reverse happened to the nations in the bottom part of Table 3. In 1960 their government expenditures as a share of GDP were below the OECD average, while their growth rates exceeded the OECD average. By 1996 their expenditures had risen above the OECD average (except for Portugal and Spain, which were just slightly below it) and their growth rates had fallen below the average.

Because these figures are for the same countries (and country groupings with relatively similar political structures, incomes, and levels of development), the potential impact of differences in such things as culture, natural resources, and motivation of the people is minimized. It would have been difficult for a researcher seeking to isolate the impact of size of government on economic growth to have designed a more relevant experiment. This is what makes the pattern of the results presented in Table 3 so compelling. When the size of government was below the OECD average—the 1990s for the top group and 1960s for the bottom group—those nations enjoyed above average growth. In contrast, when the size of government exceeded the OECD average—the 1960s for the top group and 1990s for the bottom group—those nations suffered below average growth.

Using the entire sample of 23 OECD countries, the regression results of Table 4 add precision to these findings. As in Figure 3, there are four observations for each nation. The dependent variable in the first two regressions is the growth of real GDP in a nation during a decade, and the first independent variable is government expenditures as a share of GDP at the beginning of that decade. The second independent variable is the change in government expenditures as a share of GDP during the decade. The regression shows that there is a strong negative relationship between the share of GDP going to government and the growth rate of GDP during the subsequent decade, with a *t*-statistic of 8.14 (indicating significance at the 99 percent level of confidence). There is a weaker relationship, although still statistically significant at better than the 90 percent level, between the change in government expenditures and GDP growth.

TABLE 4
THE IMPACT OF GOVERNMENT EXPENDITURES ON INVESTMENT AND GROWTH IN OECD COUNTRIES,
1960-96

Independent Variable	Dependent Variable: Growth of Real GDP during the Decade (1)	Dependent Variable: Investment as a Share of GDP during the Decade (3)
Government Expenditures as a Share of GDP at Beginning of the Decade	-0.11*** (8.14)	-0.159*** (5.14)
Change in Government Expenditures during the Decade	-0.046* (1.70)	—
Investment as a Percentage of GDP	—	—
Constant	7.724	28.4
Adjusted R ²	.43	.22
Number of Observations	92	92

NOTE: *t*-ratios are in parentheses below estimated coefficients; * indicates coefficient is statistically significant at the 90 percent confidence level; ** indicates coefficient is statistically significant at the 95 percent confidence level; *** indicates coefficient is statistically significant at the 99 percent confidence level.

SOURCES: Derived from *OECD Historical Statistics and OECD Economic Outlook*.

The second regression adds total gross investment as a percentage of GDP as an independent variable. Investment would be expected to increase economic growth, and the positive sign on the investment coefficient shows that more investment is correlated with higher economic growth.¹² The coefficient of the investment variable is significant at better than the 95 percent level of confidence. Even after adjusting for cross-country differences in investment rates, both the level of government expenditures and the change in the size of government during the decade remain highly significant. This provides additional support for the hypothesis that a larger public sector reduces economic growth.

The 0.11 coefficient for government expenditures at the beginning of the period in equation 1 of Table 4 indicates that a one unit increase in the size of government as a share of GDP at the beginning of the period reduces the growth rate during the decade by 0.11 percentage points. At the same time, an increase in government expenditures during the decade reduces growth by an additional 0.046 percentage points. Even when investment is included as an independent variable in the model (equation 2), growth is reduced by approximately one-tenth of a percentage point when the size of government is one unit greater at the beginning of the period (and by approximately five hundredths of a percent for each percentage point expansion in the size of government during the decade). This indicates that if government expenditures were 10 percentage points higher (for example, 35 percent rather than 25 percent) as a share of GDP at the beginning of the period, the long-term growth rate of real GDP would be a full percentage point lower.¹³ Correspondingly, a 10 percentage point increase in the size of government during the decade would reduce growth by five-tenths of a percentage point.

Higher government expenditures can crowd out investment, and the third regression in Table 4 indicates that this has been true for

¹²We also analyzed models that included both investment in human capital (changes in the mean years of schooling of persons 25 years and older during a decade) and variability in the rate of inflation for OECD countries. Neither of the variables was significant. In the case of the human capital variable, we suspect this reflects that years of schooling are an imperfect measure—they do not reflect differences in quality of schooling and other factors that might influence learning. For OECD countries, differences in the variability of inflation were relatively small during the time period under consideration. This may account for the insignificance of this variable.

¹³When maintained over a lengthy time period, relatively small differences in growth rates can exert a dramatic impact on income levels. For example, if the growth rate of the U.S. economy had been 1 percent lower during the 1870–1990 period, today the per capita income level of the United States would be approximately the same as that of Mexico (see Barro and Sala-i-Martin 1995).

the OECD countries in this sample. In this equation, investment as a share of GDP is the dependent variable, while size of government is the independent variable. There is a strong negative correlation between the two. The 0.159 coefficient for the size of government variable indicates that a 10 percentage point increase in the government expenditures as a share of GDP reduces an economy's investment rate by approximately 1.6 percentage points. The *t*-statistic (5.14) is significant at more than the 99 percent level, illustrating that the estimated negative impact of the government expenditures on investment is highly reliable.

Evidence From a Broader Set of Countries

This section examines another data set of 60 countries, including both less-developed and high-income industrial economies. Because these nations are more diverse than OECD members, adjustment for differences in political economy characteristics is important. Data limitations restrict this analysis to the 1980–95 period. Table 5 summarizes the statistical results from four different regression models. All countries for which the required data could be obtained are included in the analysis. The average annual growth rate of real GDP during the 1980–95 period is the dependent variable. The various independent variables included in the alternative models are indicated down the left side of the table.

The first four independent variables are measures of government expenditures and their changes. In addition to these size-of-government variables, alternative models also consider the impact of (a) security of property rights, (b) variability in the rate of inflation, (c) schooling (investment in human capital), and (d) investment in physical capital. These control variables are included in order to help us better isolate the independent effects of the size of government.

The data on security of property rights come from the *International Country Risk Guide*, a private rating service that has tracked the political, financial, and economic risks accompanying business and investment activities in various countries since 1982. While these ratings cover several areas, three of them pertain specifically to the security of property rights and presence of rule of law. These three factors are risk of expropriation, risk of contract violation, and presence of rule of law. We placed the ratings on a scale of 1 to 10; a higher rating is indicative of more secure property rights and stronger support for rule of law principles.¹⁴ Because the data series begins in 1982,

¹⁴The country ratings for risk of expropriation and risk of contract violation were on a scale of 1 to 10, while that for rule of law was on a scale of 1 to 6. After the rule of law variable was converted to a scale of 1 to 10, the three components were averaged to derive the property rights rating.

TABLE 5
IMPACT OF THE SIZE OF GOVERNMENT ON ECONOMIC GROWTH IN DEVELOPED AND
LESS-DEVELOPED COUNTRIES, 1980-95

Independent Variables	Dependent Variable: Annual Rate of Real GDP Growth			
	(1)	(2)	(3)	(4)
Government Expenditures as a % of GDP, 1980	-0.62*** (2.86)	-0.49** (2.36)	-0.42* (1.73)	-0.40* (1.69)
Change in Govt. Expenditures as a % of GDP, 1980-85	-1.15** (2.60)	-1.17** (2.81)	-1.01** (2.30)	-1.09** (2.58)
Change in Govt. Expenditures as a % of GDP, 1985-90	-1.15** (2.50)	-0.97** (2.29)	-0.83* (1.72)	-0.81* (1.76)
Change in Govt. Expenditures as a % of GDP, 1990-95	-0.68 (1.30)	-0.6 (1.22)	-0.31 (0.55)	-0.40 (0.74)
Property Rights (Initial Rating)	1.37*** (6.50)	1.30*** (6.53)	1.13*** (4.48)	1.17*** (4.85)
Change in Property Rights, 1982-95	1.46*** (5.50)	1.36*** (5.38)	1.25*** (4.30)	1.25*** (4.50)
Std. Dev. of Inflation Rate	-0.82* (1.78)	-0.57 (1.29)	-0.68 (1.49)	-0.52 (1.17)

Change in Years of Schooling (Age 25 and older) between 1980 and 1995	—	0.61** (2.80)	—	0.55** (2.38)
Investment as a % of GDP	—	—	0.085* (1.67)	0.048 (0.92)
Constant	-8.27	-8.72	-8.81	-8.98
Adjusted R2	.48	.54	.49	.54
Number of Observations	60	60	60	60

NOTE: *t*-ratios are in parentheses below estimated coefficients; * indicates coefficient is statistically significant at the 90 percent confidence level; ** indicates coefficient is statistically significant at the 95 percent confidence level; *** indicates coefficient is statistically significant at the 99 percent confidence level.

the initial rating is for 1982 rather than 1980. Components for both the property rights rating in 1982 and the change in the rating during the 1982–95 period are incorporated into the analysis.

High and variable rates of inflation may also retard economic growth. Nations with high levels of inflation tend to have high variability in their inflation rates, but there is a slightly stronger statistical relationship between the variability of the inflation rate (as measured by its standard deviation) and GDP growth than is true for the level of inflation. Thus, the standard deviation of the inflation rate was used to measure the impact of inflation on economic growth.¹⁵ Both human and physical capital can also be expected to enhance economic growth. Mean years of schooling for persons age 25 and over is used as a measure of improvements in the level of human capital.¹⁶ The physical investment component is the average investment rate as a share of GDP during the 1980–95 period.

In addition to the size of government variables, equation 1 of Table 5 includes the initial property rights rating in 1982, the change in the rating between 1982 and 1995, and the standard deviation of the inflation rate in the model. Both property rights variables are highly significant and the inflation variable is also significant at the 90 percent level. With regard to the size of government variables, the coefficients for the level of government expenditures as a share of GDP, and the changes between 1980 and 1985 and between 1985 and 1990 were all negative and highly significant. The adjusted R^2 of .48 in equation 1 indicates that the variables incorporated into this model explain 48 percent of the variation in growth rates among this diverse set of countries.

The coefficient for the level of government expenditures indicates that a 10 percentage point increase in size of government at the beginning of the period was associated with approximately a six-tenths of a percentage point reduction in growth during the entire 15-year period. The coefficients for the change in size of government variables between 1980 and 1985 and between 1985 and 1990 indicate that a 10 percentage point increase during each of these periods reduced the growth of real GDP by 1.15 percentage points during the 1980–95 period. While the change in size of government between 1990 and 1995 is negative, it is insignificant. The larger coefficients (and greater significance) of the variables reflecting the changes in the size of

¹⁵Robert Lucas, Thomas Sargent, Robert Barro and others have highlighted the adverse side effects of variability of the rate of inflation. For a theoretical analysis of this subject and related issues, see Miller (1994).

¹⁶The years of schooling data are from Barro and Lee (1993).

government for the earlier five-year periods compared to the five years of the 1990s make sense. After all, the expansion in government between 1980 and 1985 (and 1985 and 1990) will influence growth for a decade or more of the 1980–95 period, whereas the government growth of the 1990s will exert an impact over only a short portion of the 1980–95 period.

Equation 2 adds the schooling variable to the model. The changes in the years of schooling between 1980 and 1995 exert the expected positive impact, and the variable is significant at the 95 percent level of confidence. With the exception of the inflation variable, all of the other variables remain significant. Equation 3 deletes the schooling variable from the model and inserts the investment rate. The investment variable has the expected sign and it is significant at the 90 percent level of confidence. The size and significance of the other variables is very similar to that of equation 2.

Finally, equation 4 incorporates both the schooling and investment variables into the model along with the property rights, inflation, and size of government measures. In this more comprehensive model, both the initial level of government expenditures and the change during both of the five-year periods of the 1980s continue to be significant at the 90 percent level or more. The property rights and schooling variables are also highly significant. While the inflation and investment variables have the expected signs, they are no longer significant. The R^2 for equation 4 indicates that the variables of this model explain 54 percent of the variation in the ratings among this diverse set of countries.

The results in Table 5 illustrate that there is a strong positive correlation between the security of property rights and economic growth.¹⁷ This relationship highlights the importance of a legal structure that protects property rights, helps with the enforcement of contracts, and provides a fair mechanism—rule of law—for the settlement of disputes between parties. Table 5 also indicates that improvements in human capital are an important source of growth. Increases in educational attainment consistently lead to increases in the growth rate of GDP. While the statistical links between growth and the price level stability and investment variables were weaker, their significance may well have been reduced because of their correlation with other variables in the model.

The primary reason for including the “control variables” in Table 5 was to see whether size of government exerted a strong independent

¹⁷See Knack and Keefer (1995) and Keefer and Knack (1997) for additional evidence on this point.

impact on the growth of real GDP. The results indicate that it does. Even after accounting for differences across countries in protection of property rights, inflation, education, and investment, the level of government expenditures at the beginning of the period and the growth of those expenditures during the first decade of the 15-year period exerted statistically significant effects on the growth of GDP during the 1980–95 period. As in the case of the OECD nations, the magnitude of these coefficients indicates that the negative impact of size of government on growth is sizeable.

Evidence From OECD Nations with Shrinking Government

Despite the pervasive growth of government, there have been a few instances where nations have substantially reduced their government expenditures. Table 6 isolates the only three instances of a substantial decline in government expenditures as a share of the economy among OECD countries during the 1960–96 period. Ireland saw government expenditures as a share of GDP grow from 28 percent in 1960 to 52.3 percent in 1986. This situation was reversed during the 1987–96 period when government expenditures as a share of GDP declined from the 52.3 percent level of 1986 to 37.7 percent in 1996, a reduction of 14.6 percentage points. From 1960 to 1977, when government expenditures increased from 28 percent to 43.7 percent, Ireland's real GDP growth rate was 4.3 percent. It declined to 3.4 percent during the 1977–86 period, as the government further expanded to 52.3 percent of GDP. During the recent decade of shrinking government, the annual growth rate in Ireland's real GDP rose to 5.4 percent. As government expenditures shrank in Ireland, Ireland's economic growth increased.¹⁸

The experience of New Zealand is also revealing. Between 1974 and 1992, New Zealand's government expenditures as a share of GDP rose from 34.1 percent to 48.4 percent. Its average growth rate during this period was 1.2 percent. Recently New Zealand began moving in the opposite direction. The percentage of GDP devoted to government expenditures was reduced from 48.4 percent in 1992 to 42.3 percent in 1996, a reduction of 6.1 percentage points. Compared to the earlier period, New Zealand's real GDP growth has increased by more than 2 percentage points to 3.9 percent.

¹⁸Interestingly, Ireland is the only OECD country with a higher growth rate of real GDP during the 1990s than during the 1960s.

TABLE 6
COMPARING PERIODS OF EXPANSION IN THE SIZE OF GOVERNMENT WITH PERIODS OF SHRINKAGE:
IRELAND, NEW ZEALAND, AND THE UNITED KINGDOM

Country and Time Period	Government Outlays as a Percentage of GDP		Growth Rate of Real GDP during Period
	Beginning of Period	End of Period	
Ireland			
Periods of Expanding Government			
1960-77	28.0	43.7	15.7
1977-86	43.7	52.3	8.6
Period of Shrinking Government			
1987-96	52.3	37.7	-14.6
New Zealand			
Period of Expanding Government			
1974-92	34.1	48.4	14.3
Period of Shrinking Government			
1993-96	48.4	42.3	-6.1
United Kingdom			
Period of Expanding Government			
1960-82	32.2	47.2	15.0
Period of Shrinking Government			
1983-89	47.2	40.7	-6.5

SOURCES: Derived from *OECD Economic Outlook* and *OECD Historical Statistics*.

The United Kingdom provides additional evidence. Government's share of GDP rose from 32.2 percent in 1960 to 47.2 percent in 1982. During that period, the UK's GDP growth rate was 2.2 percent and there was widespread reference to the "British disease." Between 1982 and 1989, government's share of GDP declined by 6.5 percentage points to 40.7 percent. Responding, the UK's rate of GDP growth increased from 2.2 percent to 3.7 percent. While shrinking government has been rare in the past few decades, evidence from places where government has shrunk is consistent with the hypothesis that larger government lowers economic growth. The evidence illustrates that economic growth can accelerate if the size of government is reduced.

Conclusion

The findings of this paper show a strong and persistent negative relationship between government expenditures and growth of GDP, both for the developed economies of the OECD and for a larger set of 60 nations around the world.¹⁹ In the few isolated cases where nations reduced their government expenditures by an appreciable amount, this reduction in the size of government was correlated with an increase in the growth rate of real GDP. The United States has followed the world trend toward larger government expenditures. Government outlays in the United States have grown from 28.4 percent of GDP in 1960 to 34.6 percent in 1996, and the GDP growth rate has fallen from an average of 4.4 percent in the 1960s to an average of 1.9 percent during the 1990–96 period. All this evidence points in the same direction: Larger government means slower economic growth.

After several decades of declining growth rates, the conventional wisdom is that high-income developed economies can no longer achieve and sustain real growth rates of 3.5 percent and higher. For a while, the sluggish growth rates were blamed on rising energy prices. But real energy prices have been declining during the last 15 years, and there is no sign of a turnaround in growth. Some now argue that wealthy high-income nations are unable to grow rapidly because their citizens are unwilling to save very much. Still others argue that constraints imposed by technology, or the global movement of capital, or some other factor explains why today's growth rates are so much lower than a few decades ago.

¹⁹The sample of countries did not include any of the components of the former Soviet Union, China, or former communist nations from Eastern Europe, which keeps the collapse of communism from affecting the empirical results.

The evidence presented in this paper provides an alternative explanation: Increases in the size of government have slowed economic growth. More rapid growth is possible, but the higher potential growth can only be achieved if we are willing to reduce the relative size of government. The regression results presented above suggest that a decrease of 10 percent in government expenditures as a share of GDP will produce an increase in the GDP growth rate of about 1 percent. Within the context of the U.S. economy, if government spending as a share of GDP had remained at the 28.4 percent level of 1960, these estimates indicate that real GDP in 1996 would have been 20 percent greater.²⁰ The 1996 real GDP would have been \$9.16 trillion rather than \$7.64 trillion, which would have increased per capita income by \$5,860.²¹ For the average household of four, family income would have been \$23,440 *higher* if the size of government had remained at the level of the 1960.²² Big government extracts a heavy toll.

What level of government expenditures would maximize economic growth? The data analyzed here can only present an upper bound, because there is no evidence that any country in the data sets examined in this paper had a level of government expenditures insufficient to maximize growth. Some nations had government expenditures between 15 and 20 percent of GDP, and as Figure 3 indicates, those countries had higher rates of growth than nations with government expenditures in the range of 20 to 25 percent of GDP. There is no evidence that any of the nations examined here had governments so small that they inhibited growth.

These findings are highly consistent with the level of government spending on core functions—those activities that economic theory indicates are most likely to promote efficiency and enhance growth. These functions were defined generously and expenditures tabulated

²⁰On average, government expenditures were 5 percent more than the 28.4 percent figure of 1960. This would reduce the GDP growth rate by half a percent a year, which compounded over the 36 year time period is 20 percent.

²¹It is even more striking to consider what would have happened if *non*-defense government expenditures had remained at their 1960 level as a share of GDP, while defense expenditures followed the downward path that actually occurred. In this case, the size of government would have fallen to 25.4 percent of GDP by the end of the 1960s, and it would have been just slightly lower throughout the rest of the period. If this had occurred, our estimates indicate that real GDP in 1996 would have been \$10.6 trillion, more than 40 percent greater than the actual figure.

²²Ironically, because government spending would have been a smaller share of a larger economy, the 1996 real value of government expenditures would have been almost unchanged. Spending 28.4 percent of \$9.16 trillion would produce total government spending of \$2.60 trillion, compared with actual government spending of \$2.70 trillion in 1996.

in a manner likely to err on the high side.²³ Even with this generous conceptualization of core functions, current government expenditures in the United States and other industrial nations indicate that these functions can be provided with less 15 percent of GDP.

There is no evidence that governments spending between 15 percent and 20 percent are too small to maximize economic growth. On the other hand, it is clear that the core functions of government can be provided with less than 15 percent of GDP. Taken together, these two findings indicate that the growth-maximizing level of government expenditures is no more than 15 percent of GDP.²⁴ The evidence clearly shows that when the scope of government expands beyond this level, there is a negative impact on the wealth of nations.

References

- Barro, R.J. (1989) "Economic Growth in a Cross Section of Countries." NBER Working Paper No. 3120. Cambridge, Mass.: National Bureau of Economic Research.
- Barro, R.J. (1990) "Government Spending in a Simple Model of Endogenous Growth." *Journal of Political Economy* 98: S103–S125.
- Barro, R.J. (1996) "Democracy and Growth." *Journal of Economic Growth* 1: 1–27.
- Barro, R.J., and Lee, J. (1993) "International Comparisons of Educational Attainment." *Journal of Monetary Economics* 32: 363–94.
- Barro, R.J., and Sala-i-Martin, X. (1995) *Economic Growth*. New York: McGraw-Hill.
- Barth, J.R., and Bradley, M.D. (1987) "The Impact of Government Spending on Economic Activity." Manuscript. George Washington University.
- Bauer, P.T. (1972) *Dissent on Development: Studies and Debates in Development Economics*. Cambridge, Mass.: Harvard University Press.
- Benson, B.L. (1990) *The Enterprise of Law*. San Francisco: Pacific Research Institute.
- Browning, E.K. (1987) "The Marginal Welfare Cost of Taxation." *American Economic Review* 77: 11–23.

²³For example, all public education expenditures were included, even though experience has shown that the private sector is at least as adept at providing education as the public sector. All national defense spending and expenditures on highways and infrastructure were included as well.

²⁴This figure is somewhat smaller than the estimates derived by other researchers, using different methodologies (and data sets). Peden (1991) estimates that for the United States the "maximum productivity growth occurs when government expenditures represent about 20 percent of GDP." Scully (1994) estimates that the growth-maximizing size of government (combined federal, state, and local) is "between 21.5 percent and 22.9 percent of gross national product (GNP)." However, these estimates have one thing in common with ours: they also indicate that government expenditures in the United States and other industrial countries are substantially greater than the growth-maximizing level.

- Buchanan, J.M. (1975) *The Limits of Liberty: Between Anarchy and Leviathan*. Chicago: University of Chicago Press.
- Crook, C. (1997) "The Hidden Cost of Taxes." *The Economist*, 20 September: S18.
- Grier, K.B., and Tullock, G. (1987) "An Empirical Analysis of Cross-National Economic Growth, 1950–1980." Manuscript. California Institute of Technology.
- Grossman, P.J. (1988) "Government and Economic Growth: A Non-Linear Relationship." *Public Choice* 56: 193–200.
- Gwartney, J.D., and Lawson, R.A. (1997) *Economic Freedom of the World: 1997 Report*. Vancouver, B.C., Canada: Fraser Institute.
- Gwartney, J.D.; Lawson, R.A.; and Block, W. (1996) *Economic Freedom of the World: 1975–1995*. Vancouver, B.C., Canada: Fraser Institute.
- Gwartney, J.D., Lawson, R.A. and Holcombe R.G. (1998) *The Size and Functions of Government and Economic Growth*. Washington, D.C.: Joint Economic Committee of the U.S. Congress.
- Hobbes, T. ([1651] 1950) *Leviathan*. New York: E.P. Dutton.
- Holcombe, R.G. (1995) *Public Policy and the Quality of Life*. Westport, Conn.: Greenwood.
- Holcombe, R.G. (1998) "Entrepreneurship and Economic Growth." *Quarterly Review of Austrian Economics* 1(Summer): 45–62.
- Keefer, P., and Knack, S. (1997) "Why Don't Poor Countries Catch Up? A Cross-National Test of an Institutional Explanation." *Economic Inquiry* 35: 590–602.
- Kirzner, I.M. (1973) *Competition and Entrepreneurship*. Chicago: University of Chicago Press.
- Kirzner, I.M. (1997) "Entrepreneurial Discovery and the Competitive Market Process: An Austrian Approach." *Journal of Economic Literature* 35: 60–85.
- Knack, S., and Keefer, P. (1995) "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures." *Economics and Politics* 7: 207–27.
- Kormendi, R.C., and Meguire, P.G. (1985) "Macroeconomic Determinants of Growth: Cross-Country Evidence." *Journal of Monetary Economics* 16: 141–63.
- Kreuger, A.O. (1974) "The Political Economy of the Rent-Seeking Society." *American Economic Review* 64: 291–303.
- Kreuger, A.O. (1993) *Political Economy of Policy Reform in Developing Countries*. Cambridge, Mass.: MIT Press.
- Kreuger, A.O. (1997) "Trade Policy and Economic Development: How We Learn." *American Economic Review* 87: 1–22.
- Landau, D. (1983) "Government Expenditures and Economic Growth: A Cross-Country Study." *Southern Economic Journal* 49: 783–92.
- Landau, D. (1986) "Government and Economic Growth in the Less Developed Countries: An Empirical Study for 1960–1980." *Economic Development and Cultural Change* 35: 35–75.
- Lucas, R.E., Jr. (1988) "On the Mechanics of Economic Development." *Journal of Monetary Economics* 22: 3–42.
- Miller, P.J., ed. (1994) *The Rational Expectation Revolution: Readings From the Front Line*. Cambridge, Mass.: MIT Press.

- North, D.C. (1990) *Institutions, Institutional Change, and Economic Performance*. Cambridge: Cambridge University Press.
- Peden, E.A. (1991) "Productivity in the United States and Its Relationship to Government Activity: An Analysis of 57 Years, 1929-1986." *Public Choice* 69: 153-73.
- Peden, E.A., and Bradley, M.D. (1989) "Government Size, Productivity, and Economic Growth: The Post-War Experience." *Public Choice* 61: 229-45.
- Quah, D.T. (1996) "Convergence Empirics Across Economies with (Some) Capital Mobility." *Journal of Economic Growth* 1: 95-124.
- Romer, P.M. (1990) "Endogenous Technological Change." *Journal of Political Economy* 98: S71-S102.
- Rothbard, M.N. (1973) *For a New Liberty*. New York: Macmillan.
- Schumpeter, J. ([1912] 1961) *The Theory of Economic Development*. Translated by R. Opie. Cambridge, Mass.: Harvard University Press.
- Scully, G.W. (1988) "The Institutional Framework and Economic Development." *Journal of Political Economy* 96: 652-62.
- Scully, G.W. (1992) *Constitutional Environments and Economic Growth*. Princeton, N.J.: Princeton University Press.
- Scully, G.W. (1994) *What Is the Optimal Size of Government in the United States?* Dallas: National Center for Policy Analysis.
- Smith, A. ([1776] 1937) *An Inquiry Into the Nature and Causes of the Wealth of Nations*. Modern Library ed. New York: Random House.
- Solow, R.M. (1956) "A Contribution to the Theory of Economic Growth." *Quarterly Journal of Economics* 70: 65-94.
- Torstensson, J. (1994) "Property Rights and Economic Growth: An Empirical Study." *Kyklos* 47: 231-47.
- Tullock, G. (1967) "The Welfare Costs of Tariffs, Monopolies, and Theft." *Western Economic Journal* 5: 224-32.

MAKING CONSTITUTIONS WORK: CONDITIONS FOR MAINTAINING THE RULE OF LAW

Stefan Voigt

The idea never entered into my head to consider as identical the characteristics of two peoples as different as the Anglo-American and the Spanish-American. Would it not be very difficult to apply to Spain the English system of political, civil, and religious liberty? It is even more difficult to adopt the laws of the United States to Venezuela.

—Simón Bolívar

*Address to the Congress at Angostura
in 1819*

For a long time, the empirical evidence that individual liberty is conducive to economic growth was rather shaky (for a survey see Przeworski and Limongi 1993). Most of that evidence was gained using democracy as a proxy for individual liberty. More recently, studies measuring liberty directly have shown a significant correlation between economic liberty and economic growth. The results of the study by James Gwartney, Robert Lawson, and Walter Block (1996) have been widely published. The policy implications of these findings seem obvious: in order to enhance economic growth, a country's government needs to promise more individual freedom. The credibility problems associated with such promises have been discussed by Barry Weingast (1993). Constitutional economists would point at the necessity to anchor devices that secure individual liberty within the constitution that is considered the most basic document of society. The credibility problem is, however, also relevant on the constitutional level.

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Many societies have enacted constitutions that are formally in congruence with the concepts of constitutionalism and the rule of law and should thus be able to safeguard individual liberty. However, constitutional provisions are enforced to varying degrees in different states. In this paper, factors affecting to what degree a constitution is enforced will be dealt with. It is hypothesized that the constitution is part of a larger framework and should therefore not be considered a society's most basic institution. I shall try to identify some of these pre- or extra-constitutional factors that enable societies to enforce their constitutional provisions effectively.

Special emphasis will be put on the Americas because many Latin American societies used the U.S. Constitution as a model for their own constitutions (see, e.g., James 1923, Vanossi 1976, Safford 1987, and Rosenn 1991). Yet to this day, many Latin American states do not have a stable rule of law, are not stable democracies, and per capita income lags far behind U.S. income levels. This should come as a surprise for those who argue that a society's formal institutions—its constitution included—are the most important source for growth and stability. The differential performance of many Latin American states despite the formal similarity of their constitutions can therefore be considered as an interesting test case for identifying preconstitutional factors relevant for the degree of enforcement.

This paper is organized as follows: In the next section, I briefly survey some institutional approaches that seek to explain the low per capita income of Latin American societies and less developed countries more generally. The paper's third section presents my notion of the rule of law as well as that of constitutionalism and then goes on to develop my main argument. I argue that the enforceability of rule-of-law constitutions depends on the existence of a sufficiently large number of interest groups with heterogeneous interests and a credible threat potential at their disposal. Interest groups, however, can also endanger the rule of law which creates a paradox. The paper closes with open questions and an outlook.

Explaining the Low Per Capita Income of Most Latin American States

Various institutional approaches have been advanced in recent years to explain the poor economic performance of many less developed countries. More traditional approaches tend to focus on aspects like macroeconomic stabilization, capital formation, and the relative size of the sectors of an economy. Those explanations will not be discussed

here. Rather, the focus will be on approaches that take institutions explicitly into account.

Institutions are here defined as rules or norms that are subject to an enforcement mechanism. And, following Elinor Ostrom (1986: 5), rules

refer to prescriptions commonly known and used by a set of participants to order repetitive, interdependent relationships. Prescriptions refer to which actions (or states of the world) are *required*, *prohibited*, or *permitted*. Rules are the result of implicit or explicit efforts by a set of individuals to achieve order and predictability within defined situations.

Institutions can be further classified with regard to the kind of enforcement mechanism used. Those institutions backed by the coercive monopoly of the state are called external institutions while institutions relying on private enforcement, or enforcement internal to society, are called internal institutions. Internal institutions can, but need not, arise spontaneously.

Many of the approaches focusing on institutions have concentrated on external institutions. After having checked some of the more conventional explanations for the differences in per capita income, even among neighboring states, Mancur Olson (1996: 19) concludes: "The only remaining plausible explanation is that the great differences in the wealth of nations are mainly due to differences in the quality of their institutions and economic policies." It is, then, tempting to arrive at the policy recommendation that one should strengthen property rights and economic freedom in general. Many approaches, such as legal centralism, assume that external institutions can be set up and modified at will, that any society is in principle capable of setting up the "right" institutions. These are, from the point of view of the economist, those institutions that are most conducive to economic growth. It is, of course, the main goal of this paper to inquire into the possibilities and restrictions of intentionally setting up those external institutions identified as being conducive to economic growth. The main question to be dealt with is: Under what circumstances will they be effectively protected? Before presenting our own hypothesis, some of the approaches that focus on external institutions to explain the low degree of enforcement of constitutional provisions and, subsequently, also the low income levels, will be highlighted.

Many constitutional economists seek to explain the unsatisfactory development of a society by arguing that its constitutional provisions are inadequate. Cass Sunstein (1991, 1993), for instance, argues that the constitutional provisions of a society should be directed to protect a society against the weaknesses of its own customs or political culture.

In our terminology, a nation's customs and political culture are part of its internal institutions. Sunstein's proposal would thus mean that the most dangerous of the internal institutions of a given society should be made ineffectual by setting adequate counterbalancing external institutions. The (implicit) hypothesis is that an adequately drafted constitution enables a society to coordinate activities on radically different equilibria compared with what would be the case in the absence of a written or a properly drafted constitution.

Dennis Mueller (1996: 35) also names the structure of the Latin American constitutions as a possible explanation for the problems encountered there:

All Latin American countries have tended to adopt political structures that combine an independent presidency as in the United States with a legislature that is elected under rules that produce multiparty structures. The result is that, as in the United States today, neither the president nor the legislature can carry out an effective program.

Mueller thus believes the relationship between the legislature and the executive and especially the modus under which they are elected to be the cause of political instability in Latin America and ultimately for the ineffectiveness of its constitutions.

Recently, U.S. economic historians Stanley Engerman and Kenneth Sokoloff (1997) have advanced the hypothesis that the role of factor endowments—including climate, soil, and the density of native populations—has been underestimated in previous research whereas the development of institutions, independent from factor endowments, has been overestimated. They argue that in early colonial times the factor endowment is crucial for explaining the degree of inequality of wealth, income, human capital, political power, and the kind of institutions protecting the elite. Highly unequal distributions of wealth will lead to lower rates of economic growth. From their point of view, the New World can be divided into three types of colonies. The first type possesses a climate favorable for producing sugar and other crops in which economies of scale are important and in which slaves are therefore highly useful. Examples are Barbados, Brazil, Cuba, and Jamaica. The second type is characterized by native populations who survived contact with Europeans in substantial numbers, a privileged few (the *encomenderos*) own enormous plots of land and native labor. Similar to the first type of colonies, a very unequal distribution of wealth also resulted here but for different reasons. Mexico and Peru are examples. The third type is characterized by the absence of large native populations and economies of scale are negligible. Relatively small farm sizes and fairly equal distributions of wealth would be the

consequence. Examples include the northern part of what became the United States as well as Canada and Argentina. In other words: the exogeneously given factor endowments including climate and soil largely determined the fate of the various countries. The possibility to deliberately introduce and enforce institutions was thus severely limited.

But that is not their entire story. Engerman and Sokoloff further argue that the original factor endowment was reinforced by the institutions set by the respective mother countries. According to them, crucial variables were (a) land policy, (b) policy regarding immigration, and (c) regulation of trading arrangements between colonies. In other words: there was some room for institutional choice. The British, for example, encouraged immigration whereas the Spanish tightly controlled it. Here considerations of political economy might set in: those settlers first endowed with land holdings by the Spanish crown had an interest in slaves rather than more settlers because their slaves could be used to increase farm size and thus to realize economies of scale. Moreover, the early institutional choices might have constrained the possibility to choose other institutions later—that is, institutional path dependency might have been relevant. Engerman and Sokoloff thus point to a potentially relevant restriction to institutional choice, namely the exogeneously given factor endowment. At the same time, the authors stress the relevance of early decisions concerning institutions. Insofar as their approach is based on the relevance of institutions and the possibly limited degree of freedom to establish and enforce institutions at will at any point in time, it is entirely compatible with the one advanced here. However, what I disagree with is their characterization of the channels through which these restrictions on choice come to be relevant. In their approach, culture is not an important variable; in my approach it is. In order to appreciate the relative merits of the competing channels, more empirical work will be necessary.

Most of these approaches implicitly assume that constitutional rules can be effectively enforced. In contrast, I would argue that even if a society's external institutions—its constitution included—are formally conducive to political stability and economic growth, those results might not materialize because necessary preconditions that are pre-constitutional are not given and a society might therefore be unable to enforce the rules it has formally given itself. In order to formulate this hypothesis more precisely, some central concepts will be explicitly introduced at the beginning of the next section.

A Theory of the Necessary Conditions for Implementing Effective Constitutions

On the Rule of Law and Constitutionalism

It has already been mentioned that there is good evidence for supposing that individual liberty in the sense of negative rights protecting citizens from government impositions is conducive to economic growth. Here it will be argued that individual liberty is impossible without the rule of law. It will further be argued that the concepts of the rule of law and constitutionalism are so closely related to each other that they can almost be used interchangeably. The most important trait of the rule of law is that the law is to be applied equally to all persons (*isonomia*), government leaders included. It is therefore also called government under the law. No power used by government is arbitrary; all power is limited. Drawing on Immanuel Kant (1797), laws should fulfill the criteria of universalizability, which has been interpreted to mean that the law should be *general* (i.e., applicable to an unforeseeable number of persons and circumstances), *abstract* (i.e., not prescribing a certain behavior but simply proscribing a finite number of actions), *certain* (i.e., anyone interested in discovering whether a certain behavior will be legal can do so with a fairly high chance of being correct and can furthermore expect that today's rules will also be tomorrow's rules), and *justifiable* (i.e., subject to rational discourse).

There are a number of institutional provisions regularly used in order to maintain the rule of law. The most important ones are the separation of powers and the closely connected judicial review, the prohibition of retroactive legislation, the prohibition of expropriation without just compensation, *habeas corpus*, trial by jury, and other procedural devices such as protection of confidence, the principle of the least possible intervention, and the principle of proportionality. Empirically, a perfect or complete rule of law has probably never been realized: men and women have been treated differently just as members of different races have been. Successful rent seeking that leads to tax exemptions or the payment of subsidies is not in conformity with a perfect rule of law either because it is equivalent to treating people differently. The rule of law, therefore, should rather be understood as an ideal type in the sense of Max Weber (1922)—that is, as a type that abstracts from many characteristics found in reality. In order to make realized types (i.e., those found in reality) comparable, ideal types provide the criteria for comparison.

By necessity, the rule of law implies a market economy since decisions by government about production, pricing, and investment cannot

be subsumed under general rules but imply the arbitrary discrimination between persons (Hayek 1960: 227). Individual liberty will only be exempt from arbitrary interference by government, or other powerful groups, if it is secured by an effectively enforced rule of law. Closely related to the rule of law is the concept of constitutionalism that has primarily been developed by settlers in the British colonies of North America. It links the rule of law with the notion of a written constitution in which the basic procedures that government is to use are laid down. Constitutionalism is thus a normative concept not to be confused with the de facto constitution used by any society which has achieved a minimum amount of order to produce and finance public goods. A constitution will be called "effective" if the provisions that are laid down in the constitutional document are effectively enforced.

Logically, a rule-of-law constitution does not imply that the political system be democratic. Since we are here interested in identifying preconditions for maintaining the rule of law, no particular assumption concerning the political system will be made.

The Problem in Economic Terminology

Douglass North (1981: 22) defines a state as "an organization with a comparative advantage in violence, extending over a geographic area whose boundaries are determined by its power to tax constituents." If constitutions are to enable as well as to constrain government, the question arises why governments, at least in some cases, remain within the constraints laid down in the constitutional document *although* they have a comparative advantage in violence. Under what conditions is a society capable of effectively enforcing a constitution compatible with the rule of law? In economic terminology: Which conditions have to be satisfied so that those in power cannot make themselves better off by ignoring the restrictions laid down in the constitution? Suppose that the probability that government will be ousted increases with the proportion of citizens that oppose it. In case government tries to renege upon the constraints laid down in the constitution, citizens will thus need to oppose government in a coordinated way. It has been argued (Hardin 1989, Ordeshook 1992, Weingast 1995) that the constitution itself is a coordinating device that helps citizens to police state behavior. The ability to coordinate behavior is a necessary but not sufficient condition for actually opposing the government. Opposing it is costly and opposition is furthermore a public good. Therefore, it must be demonstrated that it can be rational to voluntarily participate in the production of opposition as a public good. It is argued that a constitution will only be enforced effectively if government is

confronted with a credible threat by a sufficiently large number of citizens in case it tries to cross the constraints of the constitution.

The Relevance of Individual Attitudes

Before the problem of spontaneously producing opposition can even become an issue, the population would have to solve the problem of identifying unconstitutional government action in the first place. Constitutions will rarely be so clear-cut that they allow a simple determination of whether an action lies within their confines or not. The problem will be especially severe if one is dealing with a newly enacted document that does not come with a long history of interpretation. But suppose a large majority of the population believes that government does not comply with the restrictions laid down in the constitution. Since opposition is a public good, the free-rider problem looms large. It seems therefore very likely that opposition will not emerge spontaneously and government will get away with its unconstitutional action.

Intuitively, it seems much more likely that opposition can be produced by organized groups who have already managed to solve the problem of collective action (Olson 1965), possibly for reasons entirely unrelated to making a government stay within the confines of the constitution. The role of organized groups is discussed in the next section of the paper, but I now turn to the possible relevance of individual attitudes and subsequent actions for constitutions to become effective. Collective action is only one specific form of individual action. It will be argued that the compatibility of individual attitudes with the rule of law is a necessary condition for the production of opposition that can, under certain circumstances, lead to effective constitutions.

Suppose a constitution formally compatible with the rule of law has been established. If decisive parts of the population view the government as having a purpose that goes beyond the provision of public goods demanded by individual members of society, the rule of law will be difficult to maintain, since it would not make sense to bind representatives to the same rules that the other members of society are bound to because the representatives are seen as pursuing "higher" ends and thus need adequate means. If large parts of the population think of the state as an organization that is responsible for identifying some "truth," it is, at least *ex ante*, by no means certain that every individual should be treated equally. In such a situation, it seems unlikely that the rule of law would be instituted—unless foreign organizations make their support conditional on constitutional rules formally in accordance with the rule of law.

Whether the conception of the state's higher role is the consequence of rational rulers being able to legitimize their rule (e.g., on religious grounds) need not concern us here. Societies in which Caesaro-papal regimes acquire legitimacy without a rule-of-law constitution will hardly be able to produce opposition in sufficient quantity to make the ruler stick to the constraints of a written constitution. Islamic societies might be a case in point.

Moreover, relevant parts of the population need to be convinced that it is not fate that is responsible for their lot but (at least to some degree) their individual actions. If that is not the case, no relevant opposition can be expected when autocrats try to seize power and try to rule arbitrarily rather than under general rules. The autocrat's seizure of power will then be interpreted as fate and the production of opposition as pointless. Furthermore, individuals need to be valued as individuals and not because they fulfill certain functions. If that is not the case, it would not make any sense to endow individuals with negative rights vis-à-vis the state.

Economists usually do not feel at ease with concepts such as values, norms, or attitudes. Their relevance for individual action has been disputed frequently. The argument advanced here is a hypothetical one: If individual attitudes channel individual behavior and if individual action leads to consequences on the societal level, then attitudes incompatible with the rule of law will make it less likely for a constitution based on the rule of law to be enforced effectively. It has often been claimed that constitutionalism is part of Western civilization and not easily transferable to other cultures. Most economists would negate such statements based on the argument that outcomes depend on the relevant restrictions and thus on incentives. If individual attitudes are relevant in the ways just outlined, it might simply be the case that societies are incapable of setting those restrictions necessary for the rule of law. This would mean that behavior is indeed explainable by focusing on the relevant restrictions but that, depending on the specific civilization, not any set of restrictions can be brought about.¹

The next section discusses the conditions under which the production of opposition as a public good seems likely. Notice that there is a direct link between individual attitudes and abilities to resolve the problem of collective action: In order to become active, individuals need to be convinced that their action can make a difference. Suitable

¹In Voigt (1993), values, norms, and attitudes conducive to the rule of law and economic growth are spelled out. It is asked to what degrees they can be found among the populations of Central and Eastern Europe. Based solely on differences in attitudes, predictions concerning the growth potential of the various countries are made.

individual attitudes are thus a necessary condition for collective action and the production of opposition.

Opposition Based on Organized Collective Action

As has been mentioned, it seems plausible to suppose that it is easier for organized groups than for unorganized individuals to oppose government in case it reneges on the contents of the constitution, because organized groups have already solved the problem of collective action. However, the production of opposition remains a public good and the conditions under which it can be beneficial for an organized group to participate in its provision must be specified. Before turning to these issues, I shall briefly discuss the competing hypotheses of two scholars concerning the relevance of organized groups for political as well as for economic development.

Mancur Olson (1965) has shown that many potential interest groups never manage to become effective interest groups because they are unable to solve the problem of collective action, which is basically a free-rider problem. In his *Rise and Decline of Nations*, Olson (1982) argues that within stable regimes, ever more latent interest groups will manage to become manifest interest groups. Over time, more interest groups will be successful in their rent-seeking endeavors, which will lead to stagflation, rigidities, and reduced economic growth. Olson is not directly concerned with the rule of law but his analysis has an important implication for our topic: the larger the number of organized interest groups, the higher the probability that the rule of law will suffer due to privileges granted to specific groups. As long as interest groups are not inclusive of the interests of all citizens (or “super-encompassing,” as Olson later wrote [McGuire and Olson 1996]), their existence has to be evaluated negatively. By focusing on the intended consequences of collective action, Olson arrives at the conclusion that interest groups are a threat to the rule of law.

Robert Putnam (1993) argues that the performance of democratic institutions not only hinges on their formal set-up but also on civic traditions. His argument could be read as being in direct opposition to Olson's: The larger the number of voluntary associations, the higher the degree of civility and thus the higher the performance of democratic institutions. Not every organization will have such beneficial effects, however. Only horizontally organized associations will foster cooperation and trust. Putnam's argument is based on the concept of civil society which can be traced back to Adam Ferguson (1767) and Alexis de Tocqueville (1840). Its adherents claim that a balance of power between government on the one side and a number of voluntary associations on the other would be possible (for an overview, see

Gellner 1994). Although Putnam does not deal with the consequences of civil associations' activities on the possibility to sustain a rule-of-law constitution, a causal relationship can easily be established: the larger the number of associations, the higher the chance that a relevant number will protest if government tries to renege upon the constitution.

Stephen Knack and Philip Keefer (1997) distinguish between "Olson-groups," which are expected to be harmful for economic growth, and "Putnam-groups," which are expected to be beneficial for maintaining effective constitutions. Trade unions, political parties, and professional associations are classified as "O-groups," whereas religious organizations, education, arts, musical or cultural associations as well as youth groups are classified as "P-groups." The available data does not enable the authors to distinguish convincingly between "beneficial" and "maleficial" membership.

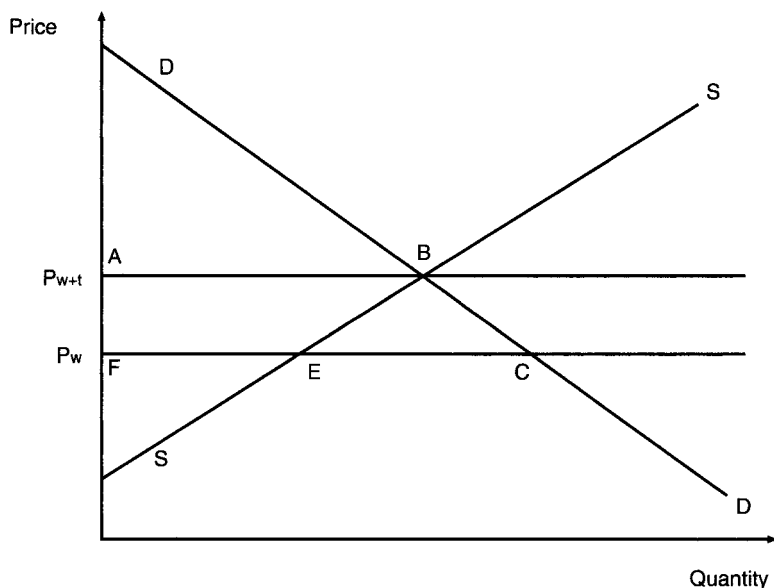
I shall argue that a sufficiently large number of O-groups is necessary for sustaining the rule of law and that they can thus be beneficial to a nation's development. Thus, neither Olson nor Putnam are entirely convincing at least with regard to the question addressed in this paper. The existence of P-groups alone would be insufficient because a large number of choirs or sports clubs might still not command the threat potential necessary for an effective opposition. The chances are higher that a rule-of-law constitution will be effectively enforced if there exists a sufficiently large number of manifest interest groups with sufficiently heterogeneous interests commanding a considerable threat potential. Contrary to Olson, the existence of O-groups is thus considered a necessary condition for making constitutions effective.

Assume that there is a situation in which the attitudes of the members of most organized groups do not flatly contradict those attitudes necessary for the maintenance of the rule of law. Further, assume that a large number of latent interest groups have managed to solve the problem of collective action and thus to form manifest interest groups. Finally, suppose that they all seek privileges from the government which, if granted, would reduce the degree to which the rule of law is effectively enforced, and that the privileges sought by one group negatively affect another group. Granting an import tariff to one group means that an industry that has hitherto used imported goods as inputs would need to pay higher prices. If that industry is already organized as an interest group, it will oppose the privilege sought by the first interest group. The condition that interest groups need to be sufficiently heterogeneous thus means that groups which would be negatively affected by certain privileges are also organized. They have an obvious incentive to oppose the granting of certain

privileges. Opposition will, however, only be successful if the opposing group(s) count—that is, if their opposition reduces the net benefit for government of granting some preferential treatment below the net benefit of not granting preferential treatment (see Becker 1983 for a similar argument).

A very simple example might help elucidate this argument. Suppose the domestic steel producers have managed to overcome the problem of collective action and founded an interest group that now demands a tariff for imported steel. Their supply curve is SS in Figure 1 and the world market price for steel is p_w . If the steel producers get a tariff (t) granted, imported steel would thus cost p_{w+t} . The demand curve of the domestic steel consumers who use steel as an input is given by DD . If a tariff is introduced, the losses accruing to the steel consumers ($ABCF$) are larger than the gains of the steel producers ($ABEF$), which means that the deadweight loss is presented by the triangle BCE . If one assumes that both interest groups use the same technology for lobbying government and that success is a function of the amount of resources spent, then the steel consumers are able to spend up to BCE more to prevent the tariff from being enacted than the steel producers would maximally spend in order to get it passed.

FIGURE 1
WELFARE EFFECTS OF A TARIFF ON PRODUCERS
AND CONSUMERS



Several conditions need to be fulfilled. Most importantly, the steel consumers need to be organized in such a way that they would be able to spend up to ABEF to prevent the tariff from being passed. In case the steel producers believe the consumers capable of so doing, their best bet would be not to spend anything on lobbying the tariff. Secondly, if there is a number of different associations presenting different steel consumers, they face a free-rider problem. These associations would only be able to prevent the tariff from being enacted if they could muster at least ABEF resources for a campaign against the tariff. The chances that the rule of law will be maintained do not monotonically increase as the number of interest groups increase. Rather, they increase with the symmetry of one interest group demanding a favor and another one exactly opposing it.

A second argument concerning the maintenance of the rule of law focuses on the legislature. In parliamentary systems, a balance that safeguards its maintenance can be secured if legislators represent heterogeneous interests. Having to convince (or to buy) many parliamentarians can be more costly than having to buy a single autocrat (Baysinger, Ekelund, and Tollison 1980). In the borderline case, net benefits of rent seeking in parliamentary systems will fall to zero so that less resources will optimally be spent on it.²

Assuming the continued existence of a parliamentary system might be premature: Can we count on heterogeneous interest groups if a would-be autocrat tries to dissolve parliament? As in the argument just made, the threat potential of the opposing interest groups is also relevant in this case. Suppose there are many interest groups that prefer nonautocratic over autocratic systems. If the would-be autocrat does not depend on their cooperation, then the days of the rule of law will be numbered. But if the interest groups have at their disposal a large and credible threat potential, the rule of law might be sustainable. The threat potential of a group is determined by its ability and willingness to inflict costs on others and thereby reduce the net social product and the benefits ensuing to the various groups. Often, the threat potential of a group relates to the amounts of resources it commands. But that does not always have to be the case: Suppose the clergy do not contribute anything directly to the net social product

²Rasmusen and Ramseyer (1994) demonstrate that as the size of legislatures increases, so does the probability that legislators will accept cheap bribes in order to vote for private interest statutes. This is attributed to more acute coordination problems connected with the larger size of the legislature. This result thus directly contradicts the transaction cost argument advanced by Baysinger, Ekelund, and Tollison (1980). However, since the legislators cannot improve their own utility substantially by accepting bribes, they might just as well ban them altogether and devote funds for enforcing such a ban.

themselves and, furthermore, do not own substantial amounts of resources but exert a great influence on their followers. In this case, one can assume that they would surely command some threat potential. In situations in which government is considering to disregard the constraints laid down in the constitution, interest groups will only be able to prevent government from doing so if they can credibly threaten some sort of retaliation.

But assume that government does not depend on the cooperation of an interest group that would be negatively affected by some special interest legislation. If no other group is ready to join the opposition, the rule of law will suffer. Since the other groups will not be worse off if the government succeeds in granting special treatment and thus in deviating from the rule of law, they do not have a direct reason to oppose the government and to declare their solidarity with the group targeted by government. Suppose that the government will not carry through its discriminatory legislation if some of the not directly affected groups oppose it because that would make it worse off. Not directly affected interest groups might voice opposition today although they are not negatively affected today because they could be the target of discriminatory treatment tomorrow. Considerations of reciprocity can thus lead to the emergence of norms to cooperate in producing opposition as a public good.³

In sum, a necessary condition for keeping government within the constraints laid down in the constitution is the existence of opposition groups that can contest the public-goods provider. Although a written constitution may help specify the legitimate range of government actions, it can never ensure that opposition will be produced whenever government oversteps its constitutional limits. A sufficiently large number of groups representing heterogeneous interests and having at their disposal some relevant threat potential can help sustain the rule of law. This result is due to an invisible-hand argument: If groups successfully organize and gain special privileges, they will undermine the rule of law and harm everybody else. The rent-seeking literature shows that the resources spent on lobbying efforts are unproductive. But, contrary to the orthodox discussion, my argument does not stop here: If interest groups are successful in preventing government and other groups from agreeing on exemptions from universalizable rules, they can become the unintended watchdogs of the rule of law. In other words, they become a safeguard for the rule of law *although* they are motivated solely by their own utility.

³The conditions under which such a norm of reciprocity may arise are more formally developed in Voigt (forthcoming: chap. 5).

Conventionally, it is argued that the beneficial functioning of the invisible hand depends on adequate rules set and enforced by the state—that is, on the visible hand of legislation. The existence of the state, as well as its ability and willingness to set and enforce adequate institutions, however, cannot be taken for granted. I have argued that, if a constitution is compatible with the rule of law, then its chances of being enforced will depend on the interplay of interest groups and government. The question of why and how such a constitution was brought about in the first place has not been dealt with here. Elsewhere, I argue that rule-of-law societies are the result of bargaining processes between a large group of diverging interests who have learned that compromise between their competing interests is only possible if they agree on universalizable rules. These are, in turn, the most important traits of the rule of law. The rule of law can even be interpreted as the unintended result of an ever growing number of interest groups trying to secure a share of the cooperation rent that the existence of the state brings about (see Voigt, forthcoming; chap. 6). Under certain circumstances, the invisible hand can thus also lead to those institutions that are prerequisite for the beneficial functioning of classical goods markets (on the difference between political and classical goods markets, see Brennan and Lomasky 1993, Wohlgemuth 1995).

If the argument concerning the action of interest groups is correct, their role for the maintenance of the rule of law is somewhat paradoxical. Although a sufficiently heterogeneous and powerful number of groups is needed, their existence threatens the maintenance of the rule of law to the extent they are successful in their rent-seeking endeavors.⁴

On the Relevance of Constitutional Culture

If a society enacts a constitution that closely resembles the U.S. Constitution but the government, in the absence of interest-group opposition, ignores some of the constraints laid down in the constitution, the constitution will soon become a dead letter. In the future, if that same society enacts a new rule-of-law constitution, its chance of success will be lowered by the initial failure—even if potentially helpful interest groups have formed in the meantime.

In the long run, the experience that the constitution does not effectively constrain government can have consequences on how the

⁴This argument resembles a paradox described by Douglass North (1981: 20), who observed that the existence of the state is a necessary condition for economic growth and at the same time the source for economic decay.

constitution is perceived by large parts of society. It might be interpreted not as an enforceable set of rights but rather as a set of *desiderata* largely irrelevant for actual government behavior. In such an environment, it will become ever more difficult for a rule-of-law society to evolve. In other words, constitutional development is path dependent.⁵

The way in which the majority of a society interprets its constitution may be the most important aspect of constitutional culture. If most people perceive the constitution as a “book of hopes” without any relation to reality, the rule of law will be weak and the written constitution will fail to constrain the redistributive state. Incorporating positive rights, such as the right to paid work and the right to adequate housing, into the constitution strengthens the book-of-hopes view of the constitution and reduces the chances of its becoming effective. (Resource scarcity implies that all hopes cannot be satisfied.)

Further Questions

The argument developed here—that a society’s ability to enact and enforce a rule-of-law constitution is severely restricted—has far-reaching implications for the way we think of constitutions. That is particularly true for the concept of the constitution as an instrument for collective self-binding (see Holmes 1988). Much work remains, especially with regard to the relevance of time and sequencing. Future research should address the following questions: Is it possible—and are there empirical cases—in which a rule-of-law constitution was established first and the interest groups relevant for its maintenance only emerged later? If Latin American constitutions claim to be compatible with the rule of law but constantly fail to meet that ideal, what are the implicit deals between the relevant interest groups? What makes it so attractive to have a constitution formally compatible with the rule of law? Do constitutions mainly serve to appease a country’s population or do they appease international organizations? How can one explain why the populations of many Latin American countries apparently trust in the constraining force of constitutions although there is strong evidence proving the opposite?

References

- Baysinger, B.; Ekelund, R.; and Tollison, R. (1980) “Mercantilism as a Rent-Seeking Society.” In J. Buchanan, R. Tollison, and G. Tullock (eds.) *Toward a Theory of the Rent-Seeking Society*, 235–68. College Station: Texas A&M University Press.

⁵The pros and cons of conceptualizing institutional change within the framework of path dependency are discussed in Kiwit (1996).

- Becker, G.S. (1983) "A Theory of Competition Among Pressure Groups for Political Influence." *Quarterly Journal of Economics* 98(3):371–400.
- Brennan, G., and Lomasky, L. (1993) *Democracy and Decision: The Pure Theory of Electoral Preference*. Cambridge: Cambridge University Press.
- Engerman, S., and Sokoloff, K. (1997) "Factor Endowments, Institutions, and Differential Paths of Growth Among New World Economies: A View From Economic Historians of the United States." In S. Haber (ed.) *How Latin America Fell Behind: Essays on the Economic Histories of Brazil and Mexico, 1800–1914*, 260–306. Stanford, Calif.: Stanford University Press.
- Ferguson, A. ([1767] 1988) *Versuch über die Geschichte der bürgerlichen Gesellschaft*. Frankfurt: Suhrkamp.
- Gellner, E. (1994) *Conditions of Liberty: Civil Society and Its Rivals*. Harmondsworth: Penguin.
- Gwartney, J.; Lawson, R.; and Block, W. (1996) *Economic Freedom of the World: 1975–1995*. Vancouver, B.C.: Fraser Institute.
- Hardin, R. (1989) "Why a Constitution?" In B. Grofman and D. Wittman (eds.) *The Federalist Papers and the New Institutionalism*, 100–20. New York: Agathon Press.
- Hayek, F. (1960) *The Constitution of Liberty*. Chicago: University of Chicago Press.
- Holmes, S. (1988) "Precommitment and the Paradox of Democracy." In J. Elster and R. Slagstad (eds.) *Constitutionalism and Democracy*, 195–240. Cambridge: Cambridge University Press.
- James, H. (1923) *The Constitutional System of Brazil*. Washington, D.C.: Carnegie Institution.
- Kant, I. ([1797] 1995) *The Metaphysics of Morals*. Translated by Mary Gregor. Cambridge: Cambridge University Press.
- Keefer, P., and Knack, S. (1997) "Why Don't Poor Countries Catch Up? A Cross-National Test of an Institutional Explanation." *Economic Inquiry* 35: 590–602.
- Kiwit, D. (1996) "Path Dependence in Technological and Institutional Change: Some Criticisms and Suggestions." *Journal des Economistes et des Etudes Humaines* 7(1): 69–93.
- Knack, S., and Keefer, P. (1997) "Does Social Capital Have an Economic Payoff? A Cross-Country Investigation." *Quarterly Journal of Economics* 112: 1251–88.
- McGuire, M., and Olson, M. (1996) "The Economics of Autocracy and Majority Rule: The Invisible Hand and the Use of Force." *Journal of Economic Literature* 34(1): 72–96.
- Mueller, D. (1996) *Constitutional Democracy*. Oxford: Oxford University Press.
- North, D. (1981) *Structure and Change in Economic History*. New York: Norton.
- Olson, M. (1965) *The Logic of Collective Action*. Cambridge, Mass.: Harvard University Press.
- Olson, M. (1982) *The Rise and Decline of Nations*. New Haven, Conn.: Yale University Press.
- Olson, M. (1996) "Big Bills Left on the Sidewalk." *Journal of Economic Perspectives* 10(2): 3–24.

- Ordeshook, P.C. (1992) "Constitutional Stability." *Constitutional Political Economy* 3(2): 137-75.
- Ostrom, E. (1986) "An Agenda for the Study of Institutions." *Public Choice* 48: 3-25.
- Przeworski, A., and Limongi, F. (1993) "Political Regimes and Economic Growth." *Journal of Economic Perspectives* 7(3): 51-69.
- Putnam, R. (1993) *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton, N.J.: Princeton University Press.
- Rasmusen, E., and Ramseyer, J.M. (1994) "Cheap Bribes and the Corruption Ban: A Coordination Game Among Rational Legislators." *Public Choice* 78: 305-27.
- Rosenn, K.S. (1991) "The Success of Constitutionalism in the United States and Its Failure in Latin America: An Explanation." In K.W. Thompson (ed.) *The U.S. Constitution and the Constitutions of Latin America*, 53-96. Lanham, Md.: University Press of America.
- Safford, R. (1987) "Politics, Ideology, and Society." In L. Bethell (ed.) *Spanish America after Independence, c. 1820-c. 1870*, 48-122. Cambridge: Cambridge University Press.
- Sunstein, C. (1991) "Constitutionalism, Prosperity, Democracy: Transition in Eastern Europe." *Constitutional Political Economy* 2(3): 371-94.
- Sunstein, C. (1993) "The Negative Constitution: Transition in Latin America." In I. Stotzky (ed.) *Transition to Democracy in Latin America: The Role of the Judiciary*, 367-82. Boulder, Colo.: Westview Press.
- de Tocqueville, A. ([1840] 1945) *Democracy in America*. New York: Knopf.
- Vanossi, J. (1976) "La Influencia de la Constitucion de los Estados Unidos de Norteamerica en la Constitucion de Republica Argentina." *Revista Juridica de San Isidro* 10/11: 73-148.
- Voigt, S. (1993) Values, Norms, Institutions, and the Prospects for Economic Growth in Central and Eastern Europe." *Journal des Economistes et des Etudes Humaines* 4(4): 495-529.
- Voigt, S. (forthcoming) *Explaining Constitutional Change: Towards a Positive Economic Theory of Constitutions*.
- Weber, M. ([1922] 1947) *The Theory of Social and Economic Organization*. Edited by T. Parsons. New York: The Free Press.
- Weingast, B. (1993) "Constitutions as Governance Structures: The Political Foundations of Secure Markets." *Journal of Institutional and Theoretical Economics* 149(1): 286-311.
- Weingast, B. (1995) "The Economic Role of Political Institutions: Market-Preserving Federalism and Economic Development." *Journal of Law, Economics & Organization* 11(1): 1-31
- Wohlgemuth, M. (1995). Economic and Political Competition in Neoclassical and Evolutionary Perspective. *Constitutional Political Economy* 6: 71-96.

ECONOMIC FREEDOM AND THE EVOLUTION OF LAW

Bruce L. Benson

Lon Fuller (1964: 30) defines law to be “the enterprise of subjecting human conduct to the governance of rules.” The key components of economic freedom arise through such an enterprise when institutions of governance support obligations to respect private property rights, freedom of enterprise, and voluntary contracts. Indeed, the underpinnings of both law and economics are identical. As David Hume (1751) observed almost two and a half centuries ago, the primary motivation for developing rules and governing institutions is that rational individuals are attempting to find ways to expand personal well-being or “wealth” in the face of scarcity. And not surprisingly, both the enterprise of law that supports a free market and the market itself actually tend to evolve spontaneously through similar processes (Menger 1883; Hayek 1973; Polanyi 1951; Benson 1989, 1992a, 1995c, 1998c).

Friedrich Hayek (1973: 98) distinguishes between the “order of actions” and the “order of rules” and suggests that, for given rules, the order of actions is what emerges from the spontaneous process governed by the order of rules. He also argues that the order of rules can emerge spontaneously, just as the order of actions does. Building on Hayek’s work, as well as others, I shall argue that many rules and institutions for governance evolve as the unintended outcomes of individuals separately pursuing their own goals (e.g., customs), just as markets do—that is, they are, as Hayek (1967: 77) explains, “the result of human action but not of human design.”

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When rules and governance evolve spontaneously through voluntary human interaction, both market and nonmarket institutions develop the way they do because individuals discover that the actions they are intended to coordinate are performed more effectively under one system or process than under another. They both facilitate wealth creation through voluntary interaction. Rules and institutions vary in quality, of course, so as individuals discover new rules or institutions that prove to be better than the ones they have been using (either because they observe others who have better rules or institutions and emulate them, or because they experiment and innovate), the new rules or institutions will be adopted unless the transactions costs of such an adoption are prohibitive. Thus, more effective rules and institutional arrangements tend to replace less effective ones as individuals observe, learn, imitate, and secede in order to migrate when superior competitive alternatives are available. Furthermore, existing rules and institutions influence the discovery process by motivating individuals to search in different directions for innovations—that is, there is a path dependency to the evolutionary process.

Economic freedom can also be undermined by rules and institutions of governance. After all, as Franz Oppenheimer (1908) explains, there are two ways for an individual to expand personal wealth: (1) “economic” processes that consist of cooperative voluntary interactions, including team production through the division of labor and voluntary exchange; and (2) “political” processes that take wealth produced by others through the use or threat of force (and/or guile). Furthermore, rules and governance institutions can facilitate either of these means of expanding an individual’s wealth. Thus, understanding the sources of and barriers to economic freedom requires recognition of conflicting incentives to establish rules and institutions that facilitate wealth expansion and that take wealth from others. This point is elaborated on below, before exploring the rules and institutions of customary law that evolve in a cooperative environment and considering the rules and institutions that are likely to arise when wealth transfers are the objective of a legal authority (see Benson 1997a, 1998a). After these issues are discussed, it will be explained that moral behavior and economic freedom are complementary consequences of customary law, and that the state with its authoritarian legal institutions is more likely to undermine both than to support them.¹ Finally, it will be suggested that for the emerging economies of the world to achieve economic freedom, states must allow customary commercial and property law to evolve.

¹On the relationship between institutions and moral behavior, see Benson (1997a, 1997b).

Wealth Seeking and the Evolution of Law

Competition over the use of scarce property is inevitable. Unilateral efforts to turn a property claim into actual ownership requires a sufficiently strong threat of violence to exclude others making conflicting claims. Since several individuals are likely to have similar incentives with regard to any scarce resource, violent competition could consume vast amounts of resources. Is such a Hobbesian “war of all against all” inevitable? No. For instance, individuals with similar capacities for violence (and therefore similarly small expectations of winning a war) might agree to recognize an equal initial distribution of private property rights to scarce resources. The incentives to live up to this agreement are largely positive: individuals expect to increase personal wealth by focusing resources in productive activities rather than protective or aggressive activities, as a result of reciprocal commitments to respect property claims.

Of course, a Hobbesian war might arise if some parties believe that their relative capacities for violence substantially enhances their probabilities of winning more wealth, but historical and anthropological evidence suggests that the earliest men lived in groups that were largely cooperative in nature (Ellickson 1993, Ridley 1996). This is not surprising since significant differences in the capacity for violence probably did not exist until wealth began to accumulate, so mutual deterrence tended to prevent wealth transfers, leaving cooperation as the most attractive means of increasing personal wealth. Furthermore, even when one party’s capacity for violence is substantially greater than other parties, continual violent conflict is still not likely to be the norm, as the weaker party will submit to the stronger if submission is expected to be less costly than conflict. Indeed, if an individual has an absolute advantage in violence he will be in a position to induce other individuals to accept (under duress) slavery, thus concentrating all property rights (including the ownership of other persons) and wealth in the hands of one “authority.” Of course, he will also have to maintain his position of dominance in order to assure continuation of the very uneven distribution of rights and wealth. After all, the slave’s incentives to accept the situation are “negative”—subjugation is expected to be better than the alternative very high probability of losing everything.

Between the extremes of voluntary agreements and coercively imposed slavery, many other nonviolent possibilities actually exist. The resulting arrangement involves extortion for “protection” from the individual receiving the payment, however, rather than payments for protection from other threats. Some protection rackets involve

large extortion payments (e.g., tribute or taxes), concentrating wealth, while others are characterized by dispersed private property rights and modest extortion payments to someone with a comparative advantage in violence. For instance, it may well be that the person choosing to pay the extortion could effectively produce a sufficient counterforce to overthrow the extortionist. But if the payment demanded is not too great, then for an individual capable of producing considerable wealth through economic processes, the cost of creating this counterforce may be too high to make it worthwhile. Thus, the extortionist is constrained in how much he can extract. Such extortion can be facilitated by the establishment of governance institutions to impose distributional rules. Let us first consider a spontaneously evolving voluntary legal order, however, before turning to the implication of extortion and law.

Customary Law and Cooperative Institutions

Voluntarily recognized “trust rules,” to use Viktor Vanberg and James Buchanan’s (1990) terminology, essentially involve explicit or implicit agreements to adopt predictable behavioral patterns or “norms” in dealings with a limited number of identified individuals. Since the primary source of conflict is scarcity, trust rules focus on property allocation. As Hayek (1973: 107) explains, “The understanding that ‘good fences make good neighbors’, that is, that men can use their own knowledge in the pursuit of their own ends without colliding with each other only if clear boundaries can be drawn between their respective domains of free action, is the basis on which all known civilization has grown. Property, in the wide sense in which it is used to include not only material things . . . is the only solution men have yet discovered to the problem of reconciling individual freedom with the absence of conflict.” Indeed, the absence of conflict may be the primary objective of such agreements, given the relatively low probability of winning such violent confrontations, as even in many animal societies “the delimitation of territorial ranges or ‘property’ . . . serves . . . to eliminate unnecessary fighting” (Hayek 1973: 75). Security of each individual’s property claims is increased as violence is avoided by accepting an obligation to respect property rights of other individuals who are expected to reciprocate by doing the same. As individuals’ time horizons lengthen, they can plan better, and resources can be allocated to maximize the potential for long-run wealth creation. Furthermore, the potential for wealth expansion through trade arises.

But why would individuals expect others to reciprocate by accepting such obligations? Individuals' promises must be credible for trust to develop, but as Vanberg and Buchanan (1990: 18) explain, "Because compliance and non-compliance with trust rules are . . . 'targeted,' the possibility exists of forming cooperative clusters." In this light, imagine an evolutionary process in which some people recognize the high cost of unilateral violence as a means of establishing property rights. Individuals with similar capacities for violence and facing the likelihood of repeated conflict (e.g., neighbors) form relatively tentative bilateral relationships, accepting obligations to limit claims in exchange for promises to recognize each others' property boundaries. As individuals begin to trust one another, other types of interaction (social, economic, religious, joint production of protection against outsiders, etc.) begin to develop. The positive incentives to cooperate expand because of the benefits from such interactions. Initially, the threat of violent retaliation is likely to be the main source of credibility backing promises. But if individuals realize significant benefits from an ongoing bilateral relationship, a rule violation can be "corrected" through a "tit-for-tat" strategy that threatens retaliation in kind (rather than exclusively through violence) in an effort to induce the violator to once again recognize the rules. The tit-for-tat strategy "does not seem to be the height of morality," as Robert Axelrod (1984: 137) suggests: it has a "slightly unsavory taste" but "a moral person can't do much better." Under these circumstances, the threatened tit-for-tat sanction is not the only source of credibility, however. Indeed, it is a relevant threat only because of the recognition of *positive* long-term benefits of remaining on good terms with the other party. Such reciprocity has implications for the evolution of moral behavior because it means that an individual can face an immediate choice of bearing costs by recognizing another's property rights but perhaps without an immediate gain, in expectation of future reciprocal behavior by someone else. Michael Taylor (1982: 28) explains that "reciprocity is made up of a series of acts each of which is short-run altruism (benefiting others at a cost to the altruist) but which together *typically* make every participant better off." Because the long-term reciprocal response is uncertain, however, a repeated-game situation does not guarantee unconditional cooperation in the form of short-term altruism. The dominant strategy still depends on expected payoffs, frequency of interaction, time horizons, and other considerations (Ridley 1996: 74–75), but additional incentives for cooperation and altruistic behavior can also arise.

As the benefits from one bilateral relationship evolve, incentives to develop similar benefits with others arise and a loose knit group

with intermeshing reciprocities begins to develop. This has the perhaps unintended consequence of creating competition, and a low-cost option to retribution or tit-for-tat sanctions arises: unconditional cooperation with anyone in the cooperative cluster, along with a refusal to interact with an individual who is known to have adopted noncooperative behavior with anyone in the evolving community and the spread of information about noncooperative acts. Vanberg and Roger Congleton (1992) refer to this response as "prudent morality," and given that reputation information spreads quickly within a group, the intended consequences of retribution and of prudent morality become quite similar. If everyone spontaneously responds to information about a rule violation, the violator is excluded from all interaction with everyone else in the community. Social ostracism is the result and it can be a very significant punishment. In fact, an individual's incentives to exact physical retribution or tit-for-tat punishment are weak when competitive alternatives exist and information is easily spread. Essentially, investments in communication mechanisms substitute for investments in capacity for personal violence, and ostracism substitutes for self-help sanctions. Indeed, Vanberg and Buchanan (1990) explain that once a group is formed based upon intermeshing bilateral trust rules, "solidarity rules" (obligations that are expected to be followed by all members of a group because compliance benefits everyone) can develop.

Solidarity rules are things like "inform your neighbors about individuals who violate trust rules" and "boycott untrustworthy individuals," and they also evolve spontaneously. Related rules like "watch out for your neighbor" and "inform everyone when a rights violation occurs" tend to follow and multilateral cooperative policing (respond to the "hue and cry") as a mutual insurance of property rights ultimately evolves. The empirical fact is that one joint product of close-knit groups is watching to prevent theft and violence and cooperation in pursuit and prosecution when either occurs (Benson 1991a, 1992b, 1994a).

Unexpected drastic reductions in wealth (e.g., fires, storms, accidental death of the household head) can lead to predictable changes in the incentives to accept obligations, so a cooperative group also tends to establish mutual insurance arrangements to protect people from the consequences of occurrences that might force them to steal in order to survive. Such arrangements might also be characterized as short-term altruism, but rational self-interested individuals will voluntarily transfer wealth to someone in distress in an attempt to create positive incentives for that individual to continue respecting their property rights. Furthermore, there is also a reciprocal assurance that

they can receive wealth transfers in the future, without resorting to theft, if they are in distress. Individuals who do not follow solidarity rules (e.g., contribute to cooperative policing and mutual insurance arrangements) are also ostracized, so free-rider problems are not significant.

Other institutional arrangements also evolve. For instance, a dispute may arise over ownership of a previously unclaimed asset. Similarly, policing is imperfect so someone accused of a rule violation may not be guilty and dispute the charge. Disputes can be resolved by violent "prosecution" and exclusion of the loser, but in a close-knit group such violence can have significant negative spillover costs, particularly if opinions of individuals in the group are mixed. These costs can be reduced by developing nonviolent means of resolving disagreements and clarifying property rights (as well as rules for claiming previously unclaimed property, such as a rule of original acquisition), and by making acceptance of a judgment relatively attractive for the loser. For instance, a mutually acceptable mediator or arbitrator might be chosen from among the most reputable members of the community, or from a pool of competitive dispute-resolution specialists. Since this third party must be acceptable to both disputants, "fairness" is embodied in the dispute-resolution process. The rule violator may also be allowed to buy his way back into the community by paying an appropriate restitution, rather than being subject to physical punishment or exclusion. Given that the chosen arbitrator/mediator convinces individuals in the group that a judgment should be accepted, the ruling can be backed by an ostracism threat, of course, although in general, dispute resolutions are likely to be accepted because even losers recognize that the long-term benefits of behaving in accordance with members' expectations probably exceed the restitution payment (or the costs of exclusion). Numerous historical and anthropological studies demonstrate that restitution and voluntary third-party dispute resolution are common institutions in close-knit groups' legal systems (Benson 1991a, 1992b, Pospisil 1971).

All such institutional developments tend to be spontaneous and unplanned, and the result is a movement toward increasingly secure private property rights under "customary law." Indeed, "There is abundant evidence that a . . . group need not make a conscious decision to establish private property rights. . . . People who repeatedly interact can generate institutions through communication, monitoring, and sanctioning. . . . Contrary to Hobbes and Locke, a property system can get going without an initial conclave" (Ellickson 1993: 1366). Thus, no central "authority" with coercive powers is necessary to produce law in such a cooperative social order. In fact, strong coercion

is only required when strong incentives to resist imposed rules exist, generally because imposed law tends to discriminate between individuals and groups, allocating substantially more wealth to some than to others.

Entrepreneurship and Evolving Customary Law

The potential benefits of team production (e.g., in hunting, protection, religious or social activities, and trade) and expanding groups suggests a potential entrepreneurial role in group development. One or more persons may emerge as "community leaders," not because of an ability to threaten violence but because of an ability to recognize opportunities to gain from cooperation and to persuade others that the benefits of cooperation and recognition of obligations will be beneficial for all of them. Thus, as Michael Polanyi (1951: 165) stresses, the evolving spontaneous order in legal rules and institutions may, in part, be "based on persuasion." Such a leader need have no special power or authority to make and enforce rules. Maintenance of a network of trust is sufficient so that others respect the entrepreneur's opinion about what the rules are or should be.

The capacity to attract followers is likely to depend on a perception that the person is a "wise man" (or woman) with whom others wish to consult, and a very productive *and* trustworthy individual with whom others can interact in joint production or trade to expand their own wealth. Indeed, it is likely that only trustworthy and successful individuals will be voluntarily recognized as leaders within small groups. The wealth accumulated by an individual in a close-knit cooperative community almost always depended on that individual's work effort and skill, and his or her ability to cooperate with others, since wealth is most effectively expanded through joint production or division of labor and voluntary exchange. Therefore, anyone who acquires sufficient property to reach the status of leadership is likely to be a mature, skilled individual with considerable physical ability and intellectual experience, and perhaps more important, someone who has a history of cooperative behavior. Such personal capabilities are deserving of respect, and, in fact, those who gain wealth in cooperative societies are generally held in very high regard (Benson 1991a, Pospisil 1971).

Those seeking leadership will have to indicate their willingness to provide wise advice and decisions to the community. As dispute resolution mechanisms evolve, these entrepreneurs have incentives to offer their services as arbitrators or mediators, both in order to gather information and to demonstrate wisdom and trustworthiness. Furthermore, "The way in which capital is acquired and how it is

used make a great difference; the [members of a community] favor rich candidates who are generous and honest. These two attributes are greatly valued" (Pospisil 1971: 67). Indeed, long-term leadership requires that gains from entrepreneurial innovations in rules and institutions be dispersed through the community of individuals who follow the entrepreneurial leader. If the benefits are exclusively captured by the innovator, the individual will be unable to attract followers. Thus, a self-interested entrepreneur's "greed" must be tempered. An individual with a long time horizon, seeking a position of leadership in order to enhance personal wealth accumulation efforts within a close-knit community, will rationally choose to pursue innovations that benefit others in the group and generously spread the wealth. Someone with an ability to recognize the gains from innovations in rules and institutions that generate dispersed benefits and with entrepreneurial skills in persuasion, however, may naturally accumulate greater wealth as the group evolves. The individual is able to personally instigate more joint ventures, wealth-enhancing exchanges, and various social forms of interaction that enhance the individual's well-being. Furthermore, those who benefit from the entrepreneur's projects tend to reciprocate when they perceive some wealth-enhancing opportunity, by seeking out the entrepreneur as a partner or investor.

Innovations in rules and institutions that may generate disproportionately large returns for the entrepreneur can also be accepted if the entrepreneur generously disperses the benefits in the form of gifts. Indeed, in primitive societies, the honor of being recognized as a leader is often "purchased" through public displays of generosity demonstrated at occasions such as marriages and in connection with disputes, in the form of "gifts" on behalf of the leader's followers in order to secure good marriages or buy peace among disputants. By achieving (purchasing) prestige as a wise and generous individual, however, such a leader expects to benefit in the future for reasons suggested above. As Matt Ridley (1996: 138) puts it, such acts "scream out 'I am an altruist; trust me.'" Thus, incentives to build a reputation as a wise, trustworthy, capable, and generous individual are strong. Not surprisingly, "gift exchanges" and "potlatching" are common practices in such societies all over the world (Ridley 1996: 114–24). Indeed, "For all the protestations of Karl Marx and Max Weber, the simple idea of gains from trade lies at the heart of both the modern and the ancient economy" and therefore, "the origin of the market, with all its capacity to exchange goods of different kinds, exploit the division of labour and provide a hedge against dependence on one good, may lie in the reciprocal food-sharing arrangements of a hunter-gatherer

band" (Ridley 1996: 199, 114), as well as in subsequent gift exchanges among increasingly wealthy groups. This brings us to one of the key points to be made here: an examination of relationships in modern international commerce (Benson 1992a, 1998c, 1998d), within domestic trade associations (Bernstein 1992; Benson 1995a, 1998b), and between neighbors in stable economic communities (Acheson 1988, Ellickson 1991) reveals that they are ruled by modern versions of the same kinds of institutions that develop in primitive customary law.

Intergroup Relationships

Neighboring communities may compete for the same scarce resources, but they also may offer opportunities for mutually advantageous cooperation. Warfare is not the only type of intercommunity relationship. Cooperative arrangements can and often do evolve between members of different groups (Benson 1995b). Even in primitive societies, entrepreneurs establish extensive trade networks that cross community boundaries (Benson 1991a; Ridley 1996: 195–211), but as such arrangements evolve they also have to be accompanied by various institutionalized rules to function effectively (Benson 1989, 1991a, 1998d). Groups need not formally "merge" and accept an entirely common set of rules governing all types of interaction, however. Individuals only have to expect each other to recognize a common set of rules pertaining to the types of inter-group interactions (e.g., trade) that evolve. Indeed, a "jurisdictional hierarchy" often tends to arise wherein each group has its own norms for intragroup relationships, with a separate and possibly different set of rules applying for intergroup relations (Pospisil 1971; Benson 1991a, 1992b, 1995b). Prudent morality might dominate within groups, for instance, while at least initially, retribution threats or tit-for-tat applies between groups where reputation effects and boycott sanctions are weaker.

To facilitate intergroup cooperation, entrepreneurs who expect to benefit often promote the use of internal sanctions to bring community members to justice when they attempt to take advantage of (e.g., attack) members of the other cooperating group (Benson 1991a). These entrepreneurial leaders also may serve as arbitrators of disputes arising between members of the different groups (Pospisil 1971, Benson 1995b), in order to enhance their reputations as fair and cooperative (trustworthy) individuals, but in doing so the security of property rights is increased for both groups. Many intragroup norms will be commonly held, of course, and emulation also will occur where differences initially exist but individuals observe and perceive superior arrangements among other groups (Benson 1989, 1998c, 1998d), so the evolution of common norms recognized and applied in a very

extensive web of communities is clearly possible (Benson 1989, 1998d; Putnam 1993; Hayek 1973). In other words, cooperation is one potential solution to intergroup conflict, although the transactions costs of such cooperation are obviously relatively high and the likelihood of differences in the opportunity costs of violence across groups due to differences in resource endowments (e.g., fertile land) and investments (e.g., hunters may develop technologies that are effective at warfare while gardeners may not) are relatively great, so intergroup conflict can also be expected.

Extortion and the Evolution of Law

Suppose that an individual has a significant comparative advantage in violence and chooses to take wealth produced by others. The result is a “negative sum” undertaking since the transfer process and any efforts to resist it consume resources that could be used to create new wealth. Nonetheless, an individual with a comparative advantage in violence may expect to be better off by taking other’s wealth than by cooperating, producing, and trading. Given that information spreads, the individual who employs a comparative advantage in violence develops a reputation for doing so. Such a reputation can be quite valuable, as increasingly, the threat of violence alone may be sufficient to extort transfers without physically taking them. Once such a reputation develops, however, the potential for entering cooperative relationships is reduced, as anyone with whom the extortionist does not have a prior trust arrangement will not believe the extortionist’s promises. Therefore, the decision to take wealth often involves a permanent commitment to extortionist behavior, creating incentives to establish an environment that will produce a steady stream of transfers from those subjected to threats—that is, rules and institutions will be designed in an effort to minimize the costs of continual extortion. Among other things, this implies that the extortionist will attempt to establish a monopoly in violence. After all, if a target for extortion can turn to another specialist in violence who sells real protection, or to a cooperative group jointly producing protection, then the extortionist’s ability to extract wealth is severely limited. Thus, the extortionist must erect barriers to exit from his jurisdiction. Furthermore, an extortionist is likely to develop institutions intended to lower measurement costs, keep records, reduce collection costs, institutionalize threats, and so on.

The scale of violence required to compete for and maintain sufficient power to maintain extortion will be greater than a single individual can produce, of course. Therefore, an entrepreneur in extortion

generally establishes a “firm”: others, who have a comparative advantage in violence but less entrepreneurial skills sell their services as inputs (e.g., strong-arm enforcers, army or police personnel, producers of tools or symbols of violence) in return for part of the wealth transferred. Such “protection firms” require cooperation in production, so behavior between people working in the firm will be quite different than their behavior toward those subjected to extortion. In fact, historically, many examples of organized aggression involved cooperative communities with established trust relationships such as those described above, who were persuaded by an entrepreneurial “leader” (e.g., tribal war chief, head of a mafia family) that they could expand their wealth at relatively low costs through raiding or conquest. Nonetheless, such an organization for violence can become a source of competition for the entrepreneur’s power if some of its members feel that they can carry out a successful coup d’état, so the extortionist has incentives to keep the evolving military/policing organizations decentralized (raising the cost of collusion) and to create an adversarial competition between them for portions of the wealth transferred.

The extortionist can also reduce the incentives for competitive entry by transferring some wealth to potentially powerful individuals in *exchange* for an agreement not to oppose his extortion efforts directed at others. As a result, the protection racket can involve a mix of extortion of the weak and protection of the relatively powerful. In order to maintain power, the extortionist also has incentives to redistribute wealth as the relative power of subgroups within his jurisdiction changes. The redistribution involves an effort to obtain the support of the subgroups whose comparative advantage in violence appears to be developing, in order to avoid competition for power. Thus, while mutual insurance arrangements in cooperative systems transfer to the disadvantaged who may have relatively weak incentives to respect property rights, extortion-based systems transfer to those who are becoming wealthy and/or powerful, as they have weaker incentives to respect the extortionist’s claim to sovereignty. Of course, there is a potential danger of the poor organizing effectively and revolting too, so some transfers may flow in their direction if they are perceived as a developing threat. In a relative sense, however, transfers to the wealthy and/or powerful will actually dominate, and any transfers to the poor will predominantly flow from others who lack wealth and power.

To facilitate this redistribution process, the cost of allocating transfers can also be lowered. Because the resulting transfer process is a negative-sum game, for instance, subgroups have incentives to compete for favorable treatment from the extortionist. The extortionist

may encourage such competition, since by keeping subgroups divided into adversarial camps the possibility of a strong coalition forming to overthrow his rule is reduced. Furthermore, institutions should develop through which the competition for transfers can be channeled and observed. By focusing such competition in “advisory councils” or “representative assemblies,” for instance, the cost of gathering information about the relative power of groups is reduced, as is the cost of interacting with various powerful groups. Powerful groups also see their interests linked to the interests of a “sovereign” as institutionalized exchanges of support for privileges develop, and, therefore, they may be less likely seek wealth by challenging the extortionist for power. An effective entrepreneur in extortion might also be able to simultaneously lower the cost of ruling and legitimize his claim as the monopoly source of rules and rule interpretation by establishing “adversarial” dispute-resolution forums (e.g., courts or assemblies) backed by threats of violence because disputes are often over distributional issues.

Oppenheimer’s (1908) political means of wealth expansion is a parasite on the economic host, so at any point in time an extortionist is constrained as to how much can be transferred. Indeed, the extortionist faces a trade-off. Large levels of extortion in the short term reduce productivity, wealth creation, and the potential for transfers over the long run. The actual degree of transfers in any period, therefore, depends in part on the extortionist’s time horizon. With any time horizon at all the extortionist is likely to recognize some private property rights and allow some cooperative organizations in order to create incentives for those subject to extortion to continue producing more wealth. Nonetheless, the potential for transfer means that all property is in a common pool open to political competition, at least to a degree, although security of property assignments varies considerably depending on the relative political power of those in the extortionist’s realm.

To the degree that the extortionist is successful in legitimizing his claims to sovereignty and preventing exit, the result is a perception that there is a single legitimate source of rules in a geographic jurisdiction (see Benson 1998a). The sovereign may attempt to design and impose his own rules, but he is also likely to claim to be the source of customary laws adopted from cooperative groups, because they are low cost mechanisms for facilitating wealth creation that he can then tax. His “law” must be above and able to alter the norms generated by such institutions, however. Thus, for instance, many early codes by kings claiming to be lawgivers were largely codifications of customary law with modifications to dictate distributional issues (Benson 1989, 1992b).

The widespread belief that the "state" is the source of all "law," suggests that many historical claimants to sovereignty have been relatively successful, since most (all?) modern nation-states clearly evolved from nonstate extortionist institutions (e.g., tribal war chiefs became kings and kingdoms became nation-states). But the "law" of the state serves many conflicting functions, simultaneously harassing and protecting private interests, extorting wealth and encouraging its production, maintaining the class structure and cutting across classes, integrating parts of society and disintegrating other parts. Law (in a positive sense) and justice (in a normative sense) clearly are not synonymous.

The rent-seeking literature stresses that theft and involuntary wealth transfers have identical economic implications. Wealth is dissipated in this competition as individuals invest resources in an effort to benefit from redistributions while others invest to prevent them (Tullock 1967). They also have similar moral implications. The competition for potential transfers of property rights by the extortionist both reflects and reinforces (or causes) the basic attitudes of individuals toward other people's property claims, including other people's lives and possessions. Benefactors who openly condone the transfer process do not recognize an obligation to respect other people's property rights. Indeed, they believe that they have the "right" to take property from others through political action. Modern manifestations of such beliefs include claims of "rights" or "entitlements" to welfare, education, medical care, social security, disaster relief, farm subsidies, jobs protected from competition, and so on, all of which require taking property from someone else. In rationalizing their claims, members of each benefactor group have incentives to recognize such entitlements for other groups as well, and the ruler has incentives to take advantage of these incentives in an effort to legitimize a claim to sovereignty and undermine opposition. He can claim that the same morality that underlies voluntary transfers also underlies and justifies involuntary transfers. Little wonder that others who actually are poor but do not have the political power necessary to benefit from such takings adopt a similar attitude toward property rights and easily turn to theft. After all, it is reasonable to believe that many who have wealth obtained at least part of it through the political process rather than through production and/or voluntary exchange; and since the transactions costs of determining how a person actually gained wealth are high, the tendency will be to view all wealth with suspicion. Since the origins of property rights to wealth are now at least partly due to political influence rather than cooperation and production, the incentives to respect property rights are further undermined.

Recall that a person who accumulates wealth in a cooperative community tends to be held in high regard, in part because the accumulation of wealth is largely a function of skill, hard work and trustworthiness, and that such individuals also have incentives to advertise their wealth by making generous gifts to others in order to purchase prestige. However, when politics becomes a source of wealth, the incentives of wealthy individuals, whether they accumulated wealth through production or through politics, to advertise their wealth with public display of generosity is undermined. Indeed, people with wealth may be seen, rightly in many cases, as “enemies” who obtain wealth at the expense of others, and they are likely to be popularly perceived as attractive targets for future reverse transfers or theft as individuals attempt to get back what they feel is “rightly theirs.” As mechanisms for signaling trustworthiness such as public gift giving (also voluntary dispute resolution which tends to be replaced by the ruler’s courts or self-help violence) are undermined, the potential for cooperative interaction to expand wealth through economic means is also reduced. In addition, since the political process of wealth transfers tends to undermine the security of private property rights, voluntary benevolence as part of a mutual insurance arrangement also is reduced. The political process of involuntary transfers clearly tends to make people more “selfish,” reducing the potential for moral behavior even in their private dealings.

Economics versus Politics and the Evolution of Law

The power of a sovereign almost never becomes absolute, but the existence of a coercive extortionist still affects cooperative groups’ customary law. As Hayek (1973: 51) explains, “spontaneous order arises from each element balancing all the various factors operating on it and by adjusting all its various actions to each other, a balance which will be destroyed if some of the actions are determined by another agency on the basis of different knowledge and in the service of different ends.” Actual deliberately designed rules are rarely able to completely dictate the targeted behavior because knowledge is incomplete for the rule maker, and policing is imperfect (Hayek 1973). There are too many uncontrolled margins and unanticipated responses for a rule designer to consider. Nonetheless, such designed rules do *influence* behavior. Indeed, because the extortionist and his judges and bureaucrats cannot fully anticipate the consequences of their actions, such actions inevitably cause trains of readjustments through time (Hayek 1973: 58–59). In particular, deliberate efforts to impose rules create incentives to circumvent those rules (e.g., see Steven

Cheung's [1974] discussion of the consequences of price controls, or consider the size of underground or informal sectors all over the world). In this context, the search for ways to avoid the rules also can significantly alter the path of the spontaneous evolution of norms and behavior.²

The possibility of opportunistic behavior by the extortionist shortens everyone's time horizon, of course, and the potential for changes in "tax policy" to capture the gains arising with investments in reputation, repeated-dealing reciprocities, and various kinds of cooperative joint-production efforts reduces the expected gains from cooperation. Furthermore, the legitimization of coercive rules and institutions stifles the development of trust relationships, as the honoring of any commitment tends to be perceived as arising primarily because of the deterrent effect of threatened sanctions from the sovereign. Therefore, fewer voluntary organizations are formed, and those formed often perform fewer functions. Moreover, to the degree that such functions are demanded by powerful political interests, the extortionist may try to force continued production, and, if that fails, he may attempt to produce them through his growing bureaucratic apparatus (Benson 1992b). The literature on rent seeking depicts the process as a negative sum game because resources are used up in the process of competing for transfers, but a more significant cost is that the potential for wealth expansion through economic processes is substantially reduced.

Polycentric Law and Situational Morality in a Political World

A system of rules and institutions for governance is necessary for the creation and expansion of wealth through joint production, special-

²A spontaneous order is often contrasted to a deliberately designed social arrangement created by some centralized ordering authority. In a static framework such a designed order might appear to be reasonable, but in a dynamic world it is not. Designed rules can disrupt spontaneous orders but they do not replace a spontaneous order with a designed order. They set off a chain of spontaneous reactions. As ways around such rules are discovered, the rule makers are likely to respond with new rules intended to block such maneuvers, those subject to the new rules react again, leading to more blocking efforts, and so on. Therefore, deliberately designed rules and institutions also evolve spontaneously as rule makers and their subjects attempt to discover ways to achieve their subjective and often conflicting ends. In other words, the evolution of intentionally created rules also tends to be path dependent, as such rules are influenced by what has come before and they in turn influence the path of the spontaneous evolution that follows. Thus, imposed rules influence the subsequent path of spontaneous evolution and any spontaneous order that results, but the result is clearly not a designed order (Hayek 1973: 58–59). The perception that deliberate design is an alternative to spontaneous order in any situation other than a very simple arrangement is incorrect.

ization and trade. A system of rules and institutions of governance is also necessary for ongoing involuntary wealth transfers to be sustained. The institutions of a market economy develop from the former and the state evolves from the latter. Property rights evolved long before states did (Ellickson 1993), and as Ridley (1996: 114) explains, the origins of the market economy (exchange, division of labor, insurance arrangements) trace back to reciprocal food-sharing arrangements in hunter-gatherer bands. On the other hand, the modern nation-state traces back to successful establishment of extortion by individuals and groups with comparative advantages in violence (Oppenheimer 1908, Benson 1998a). Economic activity does not disappear with the development of the state, of course, in part because specialists in extortion require the production of wealth in order to provide them with their income. Furthermore, as Laura Nader and Harry Todd (1978: 29–30) explain, even within modern developed nations, there are “enclaves that either do not need or actively avoid contact with the national [legal] system.” In this regard, avoiding the control of the state is most likely to occur where the benefits generated through voluntary interaction are very large (so the costs of submission are large) or where the relevant group members’ wealth is mobile so they can interact across the jurisdictions of different authorities and inter-jurisdictional competition occurs.

The international merchant community of early medieval Western Europe is one such example (Benson 1989, 1998d). Commercial law, *lex mercatoria* or the “Law Merchant,” consisted of rapidly evolving customary norms, and disputes were resolved in the merchants’ own courts. Strong incentives to cooperate through exchange, to live up to promises, to respect one another’s property rights, and to support an unbiased and fair dispute resolution system arose because of positive benefits associated with repeated dealing reciprocities and reputation effects, and because of the potential for ostracism. Similarly, modern international commercial law, which evolved from this medieval legal system, remains as a largely voluntarily produced and enforced system of spontaneously evolving norms, despite many attempts (some successful for short periods) by various coercive governments (some supported by politically powerful merchants seeking special privileges) to subjugate it over the centuries (Benson 1989, 1992a, 1998d). As Hayek (1973: 81–82) notes, “The growth of the purpose-independent rules of conduct which can produce a spontaneous order will . . . often have taken place in conflict with the aims of the rulers who tended to try to turn their domain into an organization proper. It is in the *ius gentium*, the law merchant, and the practices of the ports and fairs

that we must chiefly seek the steps in the evolution of law which ultimately made an open society possible."

The foregoing suggests that, "Contrary to a common perception, markets are not parasitic on moral attitudes that have to rely, for their nourishment, on other social settings. Instead, the more the essential features of markets (coordination by voluntary contract) are applicable, the more the market reinforces the virtues of honest behavior that in turn, make them work effectively" (Vanberg and Congleton 1992: 429). Not only is customary law based on respect for property, trustworthiness, unconditional cooperation with others who cooperate, and other forms of moral behavior, the source of economic freedom that is vital to the functioning of competitive markets, but through history, it has been the international merchant community that has probably been the most successful at resisting the political forces that undermine the incentives for moral behavior and maintaining the conditions for economic freedom. Resistance by commercial groups has also been strong within some nation-states (Bernstein 1992, Benson 1995a, 1998b), but unfortunately, members of merchant communities are also susceptible to the incentives to take wealth, and they tend to have considerable bargaining power in political arenas because they can threaten to exit. Therefore, rulers have incentives to grant large and mobile merchants special privileges within their domains that produce wealth transfers to the merchants in exchange for a portion of the transferred wealth (or perhaps, simply to generate more wealth production on the part of relatively immobile resources that are inputs to or complements of the merchants' enterprises). Thus, throughout much of history merchants have also been a major threat to economic freedom as they have taken advantage of rulers' coercive powers to obtain wealth transfers within political jurisdictions.

Medieval mercantilism was a system dominated by merchants dealing with kings to restrict economic freedom in favor of domestic monopolies and guilds, for instance, and that system still has a firm hold within many 20th-century economies (de Soto 1989). In fact, in every political jurisdiction, economic regulations undermine economic freedom by limiting competition and generating rents for businesses (Stigler 1971). Indeed, modern merchants often belong to trade associations that facilitate trade between members and with consumers by enforcing their own customary rules through internal governance institutions—such as communication channels, arbitration services, and ostracism threats (Benson 1995a, Bernstein 1992)—and simultaneously lobby for privileges such as licensing restrictions that limit others' economic freedoms. Similarly, a modern corporation has plants that produce new wealth sold through voluntary exchange and "plants"

(lobbying offices) that pursue monopoly franchises, protective tariffs and quotas, and other entry barriers that are the antithesis to economic freedom.

Thus, merchants behave differently in different institutional environments, cooperating when it pays, but seeking transfers and undermining economic freedom when the relative price of morality is too high and, as a consequence, the economy and the state have become even more tightly intertwined, to the detriment of economic freedom. It is not "economic power" that undermines moral behavior and economic freedom, however; it is political power. After all, business groups are not the only organizations that successfully operate in both the economic and the political spheres.

Even in a society with a very strong extortionist ruler, some cooperative groups always remain. Numerous examples of centralized coercive systems can be cited where "parallel" predominately cooperative systems of norms and institutions actually dominate many and at times even most interactions (e.g., see de Soto 1989, Acheson 1988, and Ellickson 1991). While the basic cooperative means of maintaining social order exist, they may take "atrophied and attenuated forms" (Taylor 1982: 65). Hernando de Soto's (1989) detailed analysis of the "informal" sector in Peru is particularly revealing in this regard, as he explains that the "squatter communities" are very well organized and members respect each others' property claims and cooperate to enforce rules of behavior. Nonetheless, the existence of a coercive state claiming authority over these communities raises transactions costs for such groups. The authority may decide to use the state's coercive institutions to take the property away from the informal communities at any time, so property claims are relatively insecure and time horizons are relatively short, compared to what they would be in the absence of the state's threats.³ Under such circumstances,

³Similarly, while these informal groups can enforce their own norms, doing so often require tactics that violate the extortionist's "law." Ostracism is less effective when property rights are tenuous due to the threat posed by the state, because short time horizons make repeated dealing arrangements and reputations less valuable. If prudent morality or tit-for-tat strategies are ineffective, the victim of a rule violation may opt for retribution. The result need not be violent: it could involve the seizure of an asset, for instance. However, that may not be an attractive option because such a seizure might be treated as a "theft" by the political authority, particularly if the offender has some political influence. Thus, retribution may involve destruction of an asset (vandalism) belonging to an offender, which is likely to be easier to cover up than a seizure (Ellickson 1991: 217; see also Acheson 1988), or even physical punishment (assault). Cooperative clusters may still aid the victim in the "illegal vigilante" exaction of retribution, of course. Under such circumstances, a considerable amount of "crime" may be "undertaken to exercise social control" (Ellickson 1991: 213; see also Acheson 1988, and de Soto 1989). Indeed, such a system is not far from the Hobbesian jungle, but it is because the predatory state exists, not because of the lack of a state legal system.

many individuals in the informal sector have incentives to pursue political influence in order to increase the security of their property rights and gain access to more effective means of enforcing their customary rules (either through more effective private institutions that evolve with the increasing security of property rights or through the use of the state's coercive sanctioning apparatus).

In sum, when a strong coercive power exists, economic success requires that property rights be recognized and supported by that power—that is the essence of a protection racket. If the state did not exist, property rights still would (and, as illustrated by the international law merchant, so would law in support of exchange and contracts). State recognition of property rights is required to achieve the most efficient use of resources then, but only because the state is a threat to those rights. Thus, if and when sufficient bargaining power is accumulated by a group (either because the group controls wealth that the extortionist wants access to and is willing to grant privileges to get, or because the group is seen as a threat to the stability of the political system), the ruler may be willing to negotiate with them, and recognize their property claims (making them subject to taxation, of course). The property rights become more secure, and the group's economic performance improves. As such groups are recognized and some members improve their political skills, their political power can also grow, and they will tend to simultaneously pursue both economic and political means of wealth enhancement (de Soto 1989). To the degree that there are different margins along which individuals and their organizations can adjust in an effort to capture wealth, it is reasonable to expect that they will do so as long as the expected gains exceed the expected costs.

How Can Economic Freedom Be Established?

Over a century and a half ago, Alexis de Tocqueville (1836: 457) wrote, "In the United States there seems to be more liberty in the customs than in the law." In this light, consider the emerging economies of Eastern Europe. Many of the emerging states have been unable or unwilling to establish a legal system that can support private property rights and enforce contracts. As a consequence, many entrepreneurs have turned to private protection services to secure their property and enforce their contracts, much as medieval merchants had to do as they began to trade across political boundaries during the formative period of the Law Merchant (Benson 1998d). Entrepreneurs from these economies who enter international markets are being introduced to the modern Law Merchant's customary commercial law

and its institutions for governance (private arbitration, information channels, and ostracism), however. These traders can see the benefits of such arrangements and attempt to emulate them in their intra-national dealings. Indeed, informal and even formal groups of trading partners are developing in places like Poland, Hungary, and the Czech Republic, much as they did in North America during the colonial period and western expansion when the state was unable to provide protection for property rights and unwilling to enforce contracts (Benson 1991a, 1995a). Repeated dealings and reputation effects are being used to support trade among the members of these groups, and some of them are also turning to arbitration when disputes arise (some groups in Hungary apparently have agreed to take all disputes to an international arbitration tribunal in Geneva, for instance, in order to avoid their other options: violence, exit, or use of inefficient national courts).

These developments may not be as rapid as some observers would like, and many political, economic, and legal consultants and academics suggest that the emerging democratic states must step up their efforts to establish commercial law. But the fact is that it takes time for the private institutions to evolve that are necessary for the development of customary law in support of private property and contract, and an attempt to shorten that time by introducing the state could actually slow the development even more by undermining incentives to develop private cooperative arrangements and by creating incentives for entrepreneurs to invest in rent seeking. Furthermore, reliance on the state for rules and legal sanctions at this early stage may mean that the future evolution of arbitration and customary commercial law may be along a very different path than the one taken in the economies of Western Europe and North America where the state did not claim jurisdiction until long after the evolutionary process was under way.⁴

The governments of North America and Western Europe have certainly moved down the path toward less economic freedom over the past century or more, but movement along that path is relatively difficult due to the strong customary law tradition that has existed. Eastern Europe may never establish economic freedom if the state gains power over the law of property and contract at this early stage in their development. After all, Eastern European legislators, bureaucrats, and judges are even less likely to understand the important legal underpinnings of a successful market economy (e.g., private property and enforceable contracts) well enough to provide effective

⁴Svetozar Pejovich (1997) makes a similar but broader point about Eastern European state efforts to spur the development of markets in general.

support for them than Western European and North American judges, bureaucrats, and politicians (Pejovich 1997). Laissez faire appears to be the best policy for emerging economies in the area of property and contract law as well as in economic policy itself.

References

- Acheson, J.M. (1988) *The Lobster Gangs of Maine*. Hanover, N.H.: University Press of New England.
- Axelrod, R. (1984) *The Evolution of Cooperation*. New York: Basic Books.
- Benson, B.L. (1989) "The Spontaneous Evolution of Commercial Law." *Southern Economic Journal* 55: 644–61.
- Benson, B.L. (1991a) "An Evolutionary Contractarian View of Primitive Law: The Institutions and Incentives Arising Under Customary American Indian Law." *Review of Austrian Economics* 5: 65–89.
- Benson, B.L. (1991b) "Reciprocal Exchange as the Basis for Recognition of Law: Examples from American History." *Journal of Libertarian Studies* 10: 53–82.
- Benson, B.L. (1992a) "Customary Law as a Social Contract: International Commercial Law." *Constitutional Political Economy* 2: 1–27.
- Benson, B.L. (1992b) "The Development of Criminal Law and Its Enforcement: Public Interest or Political Transfers." *Journal des Economistes et des Etudes Humaines* 3: 79–108.
- Benson, B.L. (1994a) "Are Public Goods Really Common Pools: Considerations of the Evolution of Policing and Highways in England." *Economic Inquiry* 32: 249–71.
- Benson, B.L. (1994b) "Emerging From the Hobbesian Jungle: Might Takes and Makes Rights." *Constitutional Political Economy* 5: 129–58.
- Benson, B.L. (1995a) "An Exploration of the Impact of Modern Arbitration Statutes on the Development of Arbitration in the United States." *Journal of Law, Economics, and Organization* 11: 479–501.
- Benson, B.L. (1995b) "Competition Among Legal Institutions: Implications for the Evolution of Law." In L. Gerken (ed.) *Competition Among Institutions*, 153–75. London: Macmillan.
- Benson, B.L. (1995c) "The Evolution of Values and Institutions in a Free Society: The Under-Pinnings of a Market Economy." In G. Radnitzky and H. Bouillon (eds.) *Values and the Social Order*, Vol. 1: 87–125. Aldershot, U.K.: Avebury.
- Benson, B.L. (1997a) "Endogenous Morality." Working Paper. Florida State University.
- Benson, B.L. (1997b) "Institutions and the Spontaneous Evolution of Morality." In G. Radnitzky (ed.) *Values and the Social Order: Voluntary Versus Coercive Orders*, Vol. 3: 245–62. Aldershot, U.K.: Avebury.
- Benson, B.L. (1997c) "Where Does Law Come From?" *Freeman* 47: 725–30.
- Benson, B.L. (1998a) "An Economic Theory of the Evolution of Governance and the Emergence of the State." Working Paper. Florida State University.
- Benson, B.L. (1998b) "Arbitration in the Shadow of the Law." In Peter Newman (ed.) *The New Palgrave Dictionary of Economics and the Law*. New York: Stockton.

- Benson, B.L. (1998c) "Evolution of Commercial Law." In Peter Newman (ed.) *The New Palgrave Dictionary of Economics and the Law*. New York: Stockton.
- Benson, B.L. (1998d) "Law Merchant." In Peter Newman (ed.) *The New Palgrave Dictionary of Economics and the Law*. New York: Stockton.
- Bernstein, L. (1992) "Opting Out of the Legal System: Extralegal Contractual Relations in the Diamond Industry." *Journal of Legal Studies* 21: 115–58.
- Cheung, S.N.S. (1974) "A Theory of Price Control." *Journal of Law and Economics* 17: 53–72.
- Ellickson, R.C. (1991) *Order Without Law*. Cambridge, Mass.: Harvard University Press.
- Ellickson, R.C. (1993) "Property in Land." *Yale Law Journal* 102: 1315–1400.
- Fuller, L. (1964) *The Morality of Law*. New Haven, Conn.: Yale University Press.
- Hayek, F.A. (1967) *Studies in Philosophy, Politics and Economics*. Chicago: University of Chicago Press.
- Hayek, F.A. (1973) *Law, Legislation, and Liberty*. Vol. 1. Chicago: University of Chicago Press.
- Hume, D. ([1751] 1957) *An Inquiry Concerning the Principles of Morals*. Edited by C. Hendel. Indianapolis: Bobbs-Merrill.
- Menger, C. ([1883] 1963) *Problems of Economics and Sociology*. Translated by F.J. Nook and edited by L. Schneider. Urbana, Ill.: University of Illinois Press.
- Nader, L., and Todd, H.F., Jr. (1978) *The Disputing Process: Law in Ten Societies*. New York: Columbia University Press.
- Oppenheimer, F. ([1908] 1914) *The State: Its History and Development Viewed Sociologically*. Translated by J. Gitterman. Indianapolis: Bobbs-Merrill.
- Pejovich, S. (1997) "Law, Tradition, and the Transition in Eastern Europe." *The Independent Review: A Journal of Political Economy* 2: 243–54.
- Polanyi, M. (1951) *The Logic of Liberty: Reflections and Rejoinders*. Chicago: University of Chicago Press.
- Pospisil, L. (1971) *Anthropology of Law: A Comparative Theory*. New York: Harper and Row.
- Putnam, R.D. (1993) *Making Democracy Work: Civil Traditions in Modern Italy*. Princeton, N.J.: Princeton University Press.
- Ridley, M. (1996) *The Origins of Virtue: Human Instincts and the Evolution of Cooperation*. New York: Viking Penguin.
- de Soto, H. (1989) *The Other Path: The Invisible Revolution in the Third World*. New York: Harper & Row.
- Stigler, G. (1971) "The Theory of Economic Regulation." *Bell Journal of Economics and Management Sciences* 1: 3–21.
- Taylor, M. (1982) *Community, Anarchy and Liberty*. Cambridge: Cambridge University Press.
- de Tocqueville, A. ([1836] 1961) *Ouvres Completes*. Paris: Gallimard.
- Tullock, G. (1967) "The Welfare Costs of Tariffs, Monopolies and Theft." *Western Economic Journal* 5: 224–32.

- Vanberg, V., and Buchanan, J. (1990) "Rational Choice and Moral Order."
In J. Nichols, Jr. and C. Wright (eds.) *From Political Economy to Economics and Back?* San Francisco: Institute for Contemporary Studies.
- Vanberg, V., and Congleton, R.D. (1992) "Rationality, Morality and Exit."
American Political Science Review 86: 418-31.

POVERTY, PROPERTY RIGHTS, AND HUMAN WELL-BEING: A CROSS-NATIONAL STUDY

Seth W. Norton

Frank Knight identified property rights as the essential ingredient for economic progress. In his classic work, *Risk, Uncertainty and Profit*, Knight (1971: 319) states:

Let us begin with the relation of capital in the sense of material goods to the fundamental structure of society. The facts of progress will be seen to have an intimate connection with the very institution of private property. In an unprogressive society private property in the modern sense of the term need not exist. The social justification of private ownership is that the coupling of control of resources with enjoyment of the fruits of their use is supposed to give an incentive to use the goods effectively in production.

Well before the modern development of the economics of property rights led to a similar conclusion, Knight asserted that property rights are the essential prerequisite for economic progress. I build on that simple premise and examine the incidence of poverty among the poorer nations of the world with respect to the presence or attenuation of property rights.

Property Rights and Economic Growth

Property rights are an essential prerequisite for growth. The economic theory of property rights suggests that economic growth requires a government to establish property rights so that economic agents can contract with minimal transaction costs and thus increase economic wealth for citizens of that country (North 1981, Eggertsson 1990: 317).

Property rights exist at the nation-state level, as nations establish basic legal rules and procedures for defining and settling ownership

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claims, and at the most disaggregated levels, as enterprising economic agents attempt to maximize their own wealth within the nation-state. Part of that entrepreneurial behavior entails the development of contracts and commercial norms that further define property rights (Smith 1992, North 1981: 18).

These two dimensions of property rights formation are not independent. The ability of entrepreneurs to contract creatively and effectively—facilitating market exchange and creating firms or hybrid organizational forms—is largely dependent on the property rights configuration at the nation-state level. If the political regime facilitates contracting via private property rights, then wealth-maximizing behavior through detailed specification of property rights and the resultant economic growth are more likely. If the political regime retards contracting via private property, then wealth maximizing behavior through the entrepreneurial specification of property rights and the attendant economic growth will likewise be less likely.

In recent years, empirical evidence consistent with the proposition that well-specified aggregate property rights enhance growth has emerged. Studies by Gerald Scully (1988 and 1992), Robert Barro (1991), Barro and Xavier Sala-i-Martin (1995), Stephen Knack and Philip Keefer (1995), Knack (1996), and Keefer and Knack (1997) show that measures of well-defined property rights, the rule of law, and public policies that do not attenuate property rights at the nation-state level tend to generate economic growth and wealth accumulation.

The Case of Poor Countries

It is sometimes argued that the link between property rights and growth is merely a coincidence because rich countries are more likely to have well-specified property rights. For example, suppose the rich countries of the world attained their wealth by economic exploitation of the poor countries or even by luck. Suppose further that the citizens of those richer states prefer well-specified property rights to favor their own well-being over the poorer members of their own countries. In such a case, property rights might be interpreted as the driving force behind the economic gains to the rich countries when in fact they would be only a coincidence. In short, the relationship between property rights and economic performance may be a statistical artifact.

To show that property rights are crucial to economic progress and human well-being, an examination of the poorer countries of the world is in order. If it can be shown that property rights are an important determinant of economic progress in poorer countries, then the case

for a nexus between property rights and economic progress would be substantially buttressed.

Measures of Property Rights

James Gwartney, Robert Lawson, and Walter Block (1996) provide a comprehensive analysis of property rights at the nation-state level. In addition, they provide numerical rankings of the degree of specification of property rights across nations for the 1975–95 period. Their study has two clear advantages over previous cross-national studies of property rights. First, the authors focus on “protective rights”—provisions that owners are free to do as they will with their own property—as opposed to “intrusive rights”—provisions that “guarantee” some scarce good such as food or health care to the citizenry.¹ Because intrusive rights are actually rights to scarce goods, their provision to the citizenry as a whole may entail tax policies or other public policies that attenuate protective rights.

Second, Gwartney, Lawson, and Block note that a number of public policies attenuate private property rights. For example, rent controls inhibit the sale of property at prices at which the market would otherwise permit the owner to sell. Similarly, inflation is a form of theft since it reduces the value of money. In short, Gwartney, Lawson, and Block show that well-specified property rights at the nation-state level are the essence of economic freedom.

Kim Holmes, Bryan Johnson, and Melanie Kirkpatrick (1997) also provide a comprehensive study of cross-national property rights. Their study, published by the Heritage Foundation, provides the basis to verify the validity of the Gwartney, Lawson, and Block findings. More important, the Heritage study can be used to examine the relative predictive ability of narrow versus broad interpretations of property rights.

In the present paper, I use the Gwartney and Lawson (1997) revision of the Gwartney, Lawson, and Block (1996) rankings because the Gwartney-Lawson study contains better estimates of the property rights measures. Table 1 shows the property rights measures used in Gwartney and Lawson and in the Heritage study.² “Heritage Narrow” is the single category ranking for the protection of private property

¹For a description of intrusive rights across countries, see Gastil (1987) and Humana (1982). For criticisms of intrusive rights, see Scully (1992) and Gwartney, Lawson, and Block (1996: 1–7).

²I use the Gwartney and Lawson (1997) summary measures averaged for 1990 and 1995 because those years are closest to the years I use for the dependent poverty and deprivation variables in the regression analysis below.

TABLE 1
PROPERTY RIGHTS MEASURES

	Mean	Std. Dev.	Mini- mum	Maxi- mum	Proportion
Gwartney-Lawson	5.01	1.38	2.00	9.30	
Strong Rights					.266
Weak Rights					.294
Heritage Narrow	2.71	1.17	1.0	5.00	
Strong Rights					.200
Weak Rights					.233
Heritage Broad	3.10	.77	1.25	5.00	
Strong Rights					.280
Weak Rights					.300

NOTES: N = 109 for the Gwartney-Lawson data; N = 150 for the Heritage data. "Heritage Narrow" is the single category ranking for protection of private property. "Heritage Broad" is a ranking on 10 categories that reflect the existence versus attenuation of property rights. Property rights are stronger as the Gwartney-Lawson numbers increase; property rights are stronger as the Heritage numbers decrease. Proportion refers to the number of countries in the "strong rights" or "weak rights" category divided by the number of countries in the sample.

SOURCES: Gwartney and Lawson (1997); Holmes, Johnson, and Kirkpatrick (1997).

and "Heritage Broad" is a ranking based on 10 categories that reflect the strength or weakness of private property rights. The Gwartney-Lawson rankings identify better specified property rights with increasing values, while the Heritage rankings identify better specified property rights with decreasing values. Thus, under the Gwartney-Lawson measure, Hong Kong, which has very strong property rights, receives a score of 9.3. Under the Heritage-Narrow and Heritage-Broad rankings, however, Hong Kong receives scores of 1.0 and 1.25, respectively. In contrast, Iran has weak property rights as evidenced by a 3.05 on the Gwartney-Lawson index and 5.0 and 4.7 on the Heritage measures. Pakistan has neither strong nor weak property rights. Its Gwartney-Lawson index is 4.45 and its Heritage measures are 2.0 and 3.1.³

Because both the Gwartney-Lawson and Heritage measures are rankings or combinations of rankings, the use of ordinary least squares (OLS) on those measures is, strictly speaking, inappropriate. There-

³The correlation between the Gwartney-Lawson index and the Heritage-Narrow index is $-.587$, while the correlation between the Gwartney-Lawson index and the Heritage-Broad index is $-.768$. The correlation between the two Heritage measures is $.838$.

fore, categorical or “dummy” variables representing “Strong Rights” and “Weak Rights” are created representing the approximately 20 to 30 percent of the strongest and weakest rankings for the countries in each study. The exact proportions used in defining the dummy variables are shown in Table 1. The dummy variables can be used as independent variables in OLS regressions with poverty measures as dependent variables.

Measures of Poverty

The United Nations *Human Development Report* (1997) views poverty in the cross-national context as a multifaceted concept. Poverty entails not only the lack of basic necessities but also the denial of basic opportunities and choices that permit human development. Accordingly, the United Nations provides two separate measures of poverty.

The Human Development Index (HDI) measures human capabilities in three areas—a long and healthy life, knowledge, and a healthy standard of living. The HDI focuses on the “progress in a community as a whole” (United Nations 1997: 20). The HDI provides a useful metric to compare human well-being across nations.

The Human Poverty Index (HPI) provides a metric to compare the well-being of “the most deprived people in the community” (United Nations 1997: 20). The HPI differs from other measures of human well-being such as GDP or the HDI by taking a “deprivational perspective” (United Nations 1997: 20)—concentrating on the status of the poor people of the world. The United Nations views this measure as a tool for advocacy and as a planning tool to identify areas in need of antipoverty policies.

The Human Poverty Index is constructed according to a complex set of formulas. The components are similar to those in the HDI including three basic dimensions of well-being—longevity, knowledge, and a decent living standard. However, using the deprivational approach, the HPI entails different measures. The first dimension is measured by the number of people in the population not expected to survive to age 40. The second dimension is measured by the proportion of adults who are illiterate and therefore excluded from the world of reading and communication. The third dimension is a composite of three variables—the percentage of people without access to health services, the percentage of people without access to safe water, and the percentage of malnourished (underweight) children under the age of five.

The HPI measure is far from ideal. It is at best an incomplete measure of deprivation and must be viewed as somewhat arbitrary. Moreover, data quality on these measures may be weaker for poor countries (Blomström, Lipsey, and Zejan 1994).

Empirical Analysis

Table 2 presents a simple picture of the role of property rights and the state of humanity. The data in Table 2 show the Gwartney-Lawson and Heritage measures of property rights and the levels of human development as measured by the HDI. Recall that Gwartney and Lawson use increasing values to indicate better specified property rights while Heritage uses decreasing values.

The data in Table 2 show that better specified property rights are associated with higher levels of human development. Because the HDI is closely related to income, these results are not surprising. They indicate that poverty is more likely in regimes where property rights are not well-specified. However, because the HDI does not entail a "deprivational" perspective, the data in Table 2 may not tell us much about the "situation and progress of the most deprived

TABLE 2
PROPERTY RIGHTS AND HUMAN DEVELOPMENT

Human Development Index	Property Rights Measures		
	Gwartney-Lawson	Heritage Narrow	Heritage Broad
High	5.86 (1.17) 49	1.86 (1.02) 56	2.56 (.699) 56
Medium	4.53 (1.38) 32	3.09 (0.97) 55	3.35 (0.68) 55
Low	3.98 (0.49) 27	3.43 (0.77) 37	3.55 (0.39) 37

NOTES: The first number is the mean. The numbers in parentheses are standard deviations. "Heritage Narrow" is the single category ranking for protection of private property. "Heritage Broad" is a ranking on 10 categories that reflect the existence versus attenuation of property rights. The last number refers to the size of the subsample. For a description of the property rights measures, see Table 1. The Human Development Index is from the United Nations *Human Development Report* (1997).

people in the community" (United Nations 1997: 20). Accordingly, examination of the HPI is appropriate.

The HPI is restricted to nation-states primarily in the medium and low categories of the United Nations' HDI highlighted in Table 2. To obtain some understanding of the effects of property rights on the well-being of impoverished people, I regress the HPI on the strong and weak dummy variables for the respective property rights measures described in Table 1.⁴ The results of these estimates are shown in Table 3. Recall that the effects of poverty get worse as the HPI rises.

The data in Table 3 show that property rights have a strong influence on the well-being of the world's most impoverished people. Where property rights are strong, the HPI is reduced substantially. For the Gwartney-Lawson measures, the weak rights coefficient is also quite robust and positive, indicating that weak rights are associated with greater deprivation for the world's impoverished. To interpret those estimates, note that "on average" the HPI is about 28. However, in countries with strong property rights, the HPI is about 15 ($28 - 13$), while in countries with weak rights, the HPI is about 38 ($28 + 10$). The coefficients for the Heritage-Narrow and Heritage-Broad weak property rights measures are also positive but only marginally significant. In summary, there is compelling evidence that strong property rights significantly reduce the deprivation of the world's most impoverished people and there is some evidence that weak property rights increase the deprivation of those people.

The interpretation of Table 3, however, is complicated by the use of the HPI. Accordingly, the components of the HPI for this sample of poor countries are regressed on the property rights measures and reported in Table 4.

The data in Table 4 are similar to the estimates in Table 3 except for the access to health care measure where the property rights measures appear to be irrelevant. In all other cases, property rights clearly affect human well-being. In most cases strong property rights reduce deprivation and in several cases weak property rights amplify human deprivation. Moreover, the weakest results are for the no access to health care variable. That measure is clearly an input measure of well-being rather than an output measure. More important, whatever its merits, the health care measure seems to be largely irrelevant to the

⁴In the regressions, I use H.L. White's (1980) heteroskedasticity-consistent covariance matrix because the heteroskedasticity may be important across countries. However, the standard errors do not differ much from the OLS standard errors. I also performed Tobit estimates for all the dependent variables because they might be censored. The results were nearly equivalent to the OLS and White estimates.

TABLE 3
REGRESSION ESTIMATES OF HUMAN POVERTY INDEX ON PROPERTY RIGHTS MEASURES

Measure	Constant	Regression Coefficient		Adjusted R-squared	F-statistic	N
		Strong Rights	Weak Rights			
Gwartney- Lawson	28.33 (9.50)	-13.23 (-3.53)	10.06 (2.57)	.32	14.02	57
Heritage Narrow	30.00 (12.96)	-20.04 (-5.37)	6.57 (1.86)	.16	7.61	72
Heritage Broad	30.42 (13.75)	-17.95 (-4.98)	6.56 (1.84)	.20	9.84	72

NOTES: "Heritage Narrow" refers to the single property rights ranking; "Heritage Broad" refers to the 10 measures of economic freedom as property rights; the Human Poverty Index is from the United Nations *Human Development Report* (1997); *t*-values are in parentheses.

TABLE 4
PROPERTY RIGHTS AND COMPONENTS OF THE HUMAN POVERTY INDEX

Poverty Measure	Sample	Constant	Regression Coefficients		Adjusted R-squared	F-statistic	N
			Strong Rights	Weak Rights			
Death Rate before Age 40	GL	17.37 (7.64)	-8.00 (-3.00)	9.03 (2.71)	.26	10.90	56
	HN	19.38 (11.40)	-13.88 (-5.70)	5.86 (2.08)	.15	7.41	71
	HB	19.69 (11.32)	-13.83 (-6.54)	6.14 (2.24)	.24	11.80	71
No Access to Health Service	GL	29.57 (5.96)	-9.68 (-1.40)	2.42 (0.34)	.00	1.08	47
	HN	28.82 (8.02)	-17.07 (-2.52)	1.07 (0.20)	.00	1.35	63
	HB	28.50 (7.73)	-9.17 (-1.01)	1.81 (0.22)	.00	0.61	63
No Access to Safe Water	GL	32.28 (7.10)	-12.28 (-1.74)	8.96 (1.41)	.10	3.79	54
	HN	34.85 (10.75)	-28.32 (-6.62)	4.65 (0.91)	.10	4.63	69
	HB	34.65 (10.01)	-19.20 (-2.94)	5.57 (1.07)	.09	4.18	69

(continued next page)

TABLE 4
PROPERTY RIGHTS AND COMPONENTS OF THE HUMAN POVERTY INDEX (continued)

Poverty Measure	Sample	Constant	Regression Coefficients		Adjusted R-squared	F-statistic	N
			Strong Rights	Weak Rights			
Adult Illiteracy	GL	30.55 (7.37)	-17.83 (-3.47)	12.34 (2.19)	.28	11.26	55
	HN	31.75 (9.00)	-21.31 (-4.10)	7.80 (1.45)	.09	4.25	67
	HB	32.56 (8.70)	-21.64 (-4.76)	7.69 (1.42)	.14	6.55	67
Underweight Children under Age 5	GL	18.91 (9.03)	-3.50 (-0.91)	8.52 (2.35)	.12	4.61	56
	HN	20.65 (11.18)	-7.65 (-1.48)	8.61 (2.62)	.10	5.03	70
	HB	20.14 (11.66)	-5.86 (-1.21)	9.64 (3.00)	.14	6.75	70

NOTES: GL refers to Gwartney and Lawson (1997); HN refers to Heritage Narrow; HB refers to Heritage Broad; the deprivation measures are from the United Nations *Human Development Report* (1997); death rate before age 40 is the proportion of a country's population not expected to survive to age 40; the other measures are the percentage in each category for each country; *t*-values are in parentheses.

mortality measure—the proportion of the population expected to die before age 40—where property rights profoundly affect the outcome.

Table 4 shows that the proportion of people not expected to live to age 40 is about 6 to 9 percent for regimes with strong property rights and more than 25 percent for regimes with weak property rights.⁵ In the case of adult illiteracy, where people are deprived of the benefits of knowledge and communication associated with literacy, the illiterate adult proportion of poor countries is about 13 percent in regimes with strong property rights and about 43 percent in those regimes with weak property rights, using the Gwartney-Lawson measures. The proportion of a country's citizenry without access to safe water is reduced from about 35 percent to about 6.5 percent, using the Heritage-Narrow measure for strong property rights. Even in the case of the percentage of children that are undernourished, where the property rights measures only seem to have a statistically significant effect in regimes where property rights are weak, the economic significance of those effects is palpable. In general, for the poor countries of the world, about 20 percent of the children under five years of age are undernourished. However, in those poor countries of the world where property rights are weak, about 27 to 29 percent are undernourished. The difference must be significant to those children and to their families.

Conclusion

Previous research shows that property rights are required for economic development and growth. That relationship, however, does not directly address the well-being of the world's poorest inhabitants. My results indicate that the very measures developed by the United Nations to quantify human deprivation are sensitive to the cross-national specification of property rights. I show unequivocally that well-specified property rights enhance the well-being of the world's poorest inhabitants. Thus, my results are consistent with Knight's

⁵The regression equation is:

$$\text{Death Rate} = \beta_0 - \beta_1 \text{STRONG RIGHTS} + \beta_2 \text{WEAK RIGHTS},$$

where β_0 is a constant across all countries, β_1 is the coefficient for countries with strong rights (20–30 percent of countries based on the Gwartney-Lawson and Heritage rankings) and β_2 is the coefficient for countries with weak rights (20–30 percent of countries based on the same rankings). The coefficients are categorical or “dummy variables,” similar to a constant term for the group of countries that they represent. For example, for the Heritage Narrow estimates, the constant term is 19 percent, but subtracting 13.88 (the β_1 estimate) means the percentage not surviving to age 40 is about 5.5 in countries with strong property rights while adding 5.86 (the β_2 estimate) means the percentage not surviving is about 25 percent in countries with weak property rights.

observations that (1) progress has an intimate connection with the institution of private property, and (2) the connection is generally evident regardless of the measure of property rights. In particular, the institution of private property is closely linked with the well-being of the poorest members of the world community.

The fact that these results are generally more robust in the cases where the Gwartney-Lawson measures of property rights are used also merits attention. Those measures are the most comprehensive and the most subtle in recognizing the centrality of property rights and their attenuation or absence. The measures are especially sensitive to the attenuation of protective property rights by some regimes insisting on providing intrusive rights that really are not property rights but the attenuation of property rights via efforts to redistribute wealth.

In his Nobel Lecture, Theodore W. Schultz (1980: 639) pointed out that because most people of the world are poor, understanding the economics of poor people means understanding most of the economics that really matters. In that light, the critical finding of this paper is that strong property rights tend to reduce the deprivation of the world's poorest people while weak property rights tend to amplify the deprivation of the world's poorest people.

References

- Barro, R.J. (1991) "Economic Growth in a Cross Section of Countries." *Quarterly Journal of Economics* 106: 407-43.
- Barro, R.J., and Sala-i-Martin, X. (1995) *Economic Growth*. New York: McGraw-Hill.
- Blomström, M.; Lipsey, R.E.; and Zejan, M. (1994) "What Explains the Growth of Developing Countries?" In W.J. Baumol, R.R. Nelson, and E.N. Wolf, (eds.) *Convergence of Productivity*. Oxford: Oxford University Press.
- Eggertsson, T. (1990) *Economic Behavior and Institutions*. Cambridge: Cambridge University Press.
- Gastil, R.D. (1987) *Freedom in the World*. Westport, Conn.: Greenwood Press.
- Gwartney, J.; Lawson, R.; and Block, W. (1996) *Economic Freedom in the World: 1975-1995*. Vancouver, B.C.: Fraser Institute.
- Gwartney, J., and Lawson, R. (1997) *Economic Freedom in the World: 1997*. Vancouver, B.C.: Fraser Institute.
- Holmes, K.R.; Johnson, B.T.; and Kirkpatrick, M. (1997) *1997 Index of Economic Freedom*. Washington, D.C.: Heritage Foundation and Dow Jones.
- Humana, C. (1982) *World Human Rights Guide*. New York: Pica
- Keefer, P., and Knack, S. (1997) "Why Don't Poor Countries Catch-Up? A Cross-National Test of Institutional Explanations." *Economic Inquiry* 35: 590-602.

- Knack, S. (1996) "Institutions and the Convergence Hypothesis: The Cross-National Evidence." *Public Choice* 87: 207-28.
- Knack, S., and Keefer, P. (1995) "Institutions and Economic Performance: Cross-Country Tests Using Alternative Institutional Measures." *Economics and Politics* 7: 207-27.
- Knight, F.H. (1971) *Risk, Uncertainty and Profit*. Chicago: University of Chicago Press.
- North, D.C. (1981) *Structure and Change in Economic History*. New York: W.W. Norton.
- Schultz, T.W. (1980) "Nobel Lecture: The Economics of Being Poor." *Journal of Political Economy* 88: 639-51.
- Scully, G.W. (1988) "The Institutional Framework and Economic Development." *Journal of Political Economy* 96: 652-62.
- Scully, G.W. (1992) *Constitutional Environments and Economic Growth*. Princeton: Princeton University Press.
- Smith, V. (1992) "Economic Principles in the Emergence of Humankind." *Economic Inquiry* 30: 1-13.
- United Nations (1997) *Human Development Report*. New York: Oxford University Press.
- White, H.L. (1980) "A Heteroskedasticity-Consistent Covariance Matrix Estimator and a Direct Test for Heteroskedasticity." *Econometrica* 48: 817-38.

ECONOMIC FREEDOM, POLITICAL FREEDOM, AND ECONOMIC WELL-BEING: A CAUSALITY ANALYSIS

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In recent years, a renewed interest has been shown in trying to further comprehend the factors that determine a country's rate of economic growth. This is important since a higher growth rate means greater national output, potentially higher living standards, and an enhanced ability to attain economic and social objectives. Earlier studies of the causes of economic growth focused on the importance of increasing exogenous quantities of physical resources (land, labor, and capital) to enhance the rate of growth, while more recent evidence suggests that growth is determined by a much larger set of endogenously determined variables.¹

Institutional factors—the political and economic customs and practices that exist within countries—have received particular attention in a number of recent studies. The importance of these factors lies in the fact that all economic decisions are made within a given institutional setting. And while it is difficult to know with certainty how these factors influence economic growth, it is generally assumed that greater economic and political freedom act as catalysts to enhance growth. But economic growth may also, in turn, enhance economic and political freedom.²

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¹Studies that have identified specific endogenous causal factors of economic growth include Barro (1991); Grossman and Helpman (1994); Lucas (1988); Mankiw, Romer, and Weil (1992); Pack (1994); Romer (1994); and Solow (1994).

²For a recent discussion of political and economic freedom from an institutional perspective, see Hanke and Walters (1997).

Most of the previous studies of the interrelationships between measures of economic freedom, political freedom, and economic growth have concentrated on only one aspect at a time, ignoring any potential feedback or multilateral relationships. Studies that have explicitly considered the impact of various political freedoms on economic growth include Bardhan (1993), Barro (1993, 1994, 1996), Barro and Sala-i-Martin (1995), Dasgupta (1990, 1993), Easterly and Pritchett (1993), Grier and Tullock (1989), Hanke and Walters (1997), Kormendi and Meguire (1985), Pennar et al. (1993), Przeworski and Limoni (1993), Ryan (1994), and Scully (1988, 1992). Evidence has generally supported the belief of a positive linkage between political freedom and growth, but there have always been dissenters who believe that political freedom might be negatively related to growth, particularly for nations at lower levels of economic or political development. Furthermore, most previous studies have failed to adequately address the possibility of reverse causation between economic growth and political freedom. This weakness has been singled out in studies by Barro and Sala-i-Martin (1995); Huber, Rueschemeyer, and Stephens (1993); Levine and Renelt (1992); Levine and Zervos (1993); Przeworski and Limoni (1993); and Solow (1994). Specifically, a question remains concerning the direction and significance of the impact of political freedom on economic growth and the contribution of economic growth, if any, to the enhancement of political freedom.

In a similar vein, another group of studies have examined the relationship between economic freedom and economic growth. While most of the research in this area has found that economic freedom does make a significantly positive contribution to growth (Barro and Sala-i-Martin 1995; Gastil 1978; Gwartney, Lawson, and Block 1996; Islam 1996; Scully 1988), there is also the possibility, as noted by Barro and Sala-i-Martin (1995), of an inverse relationship running from growth to economic freedom.

Finally, links between economic freedom and political freedom have long been theorized. However, perhaps due to the tendency to lump the two concepts together, limited empirical evidence exists to support any possible interrelationship. In *Capitalism and Freedom*, Milton Friedman (1962: 10) considered the links between the two freedoms and suggested, "The relationship between political freedom and economic freedom is complex and by no means unilateral."

Little effort has been forthcoming to analyze potential multilateral relationships that may exist among measures of economic freedom, political freedom, and economic growth. In addition, questions have arisen concerning whether the interrelationships vary over different stages of development. The purpose of this paper is to offer evidence

concerning the direction of causation between measures of economic freedom, political freedom, and economic growth among both industrial and nonindustrial countries. As such, the empirical results may help to identify relationships that may improve upon endogenous growth models (see Grier and Tullock 1989). Moreover, by showing that particular policy-growth relationships apply across countries, our study should improve policy decisions and economic performance (see Levine and Zervos 1993).

Causality in Economic Analysis

The issue of causality is at the foundation of any study that examines an economic relationship. General understanding of how a change in one variable affects another is paramount in comprehending economic behavior and in formulating policy. Fortunately, economic theory is often available to help guide the building of models that are used to empirically examine the causal relationships among variables. However, this is not always the case. As an example, currently there is no theory that provides a sufficient explanation of the possible connections, if any, among measures of economic freedom, political freedom, and economic growth.

A methodology that has been used extensively in recent years to gain further insight into such situations is Granger causality (see Granger 1969). To briefly explain how this methodology works, assume there are two time series, X and Y , where evidence is sought of a potential causal relationship. The following fundamental procedure is used to test for Granger causality running from X to Y . If, while controlling for the information contained in past (lagged) values of Y , past (lagged) values of X add significantly to the explanation of current Y , then X is said to “Granger-cause” Y . A symmetric test can also be performed to test for Granger causality running from Y to X . If, while controlling for the information contained in lagged values of X , lagged values of Y add significantly to the explanation of current X , then “ Y Granger-causes X .” A finding that only one of these relationships is true provides support for a unilateral line of causation. However, if both are found to be true, support for a bilateral (or jointly determined) relationship is provided. If neither relationship is found to exist, the assumption is made that the two variables are unrelated. It should be noted that this methodology does not provide “proof” of causation. The results from such tests should only be interpreted as showing that prior changes in one variable add (or do not add) significantly to the explanation of the future value of another variable. However, these Granger results do provide valuable information that

can aid in the development of new theories or in the refinement of existing ones.

A more formal test for Granger causality running from X to Y is shown as:

$$Y_t = a_1 + \sum_{j=1}^J b_j Y_{t-j} + \sum_{k=1}^K c_k X_{t-k} + v_t$$

where v_t is assumed to be a white noise error term and Y_{t-j} and X_{t-k} represent the information contained in lagged values of Y and X . The number of lagged values (J and K) for the independent variables is chosen by the investigator to adequately capture the integrity of the relationship. To conduct the Granger-causality test, the above regression equation is estimated with and without X_{t-k} followed by an F -test to test the null hypothesis that $c_k = 0$ for $k = 1, \dots, K$. A rejection of the null hypothesis implies that X Granger-causes Y .

The formal test for Granger causality running from Y to X is performed using a symmetrical test shown as:

$$X_t = a_2 + \sum_{l=1}^L e_l X_{t-l} + \sum_{m=1}^M f_m Y_{t-m} + v_t$$

where once again v_t is assumed to be a white noise error term and the appropriate lag structure (L and M) is chosen by the researcher. If the null hypothesis $f_m = 0$ for $m = 1, \dots, M$ is rejected, then Y Granger-causes X . If the null hypothesis for each of the above Granger-causality tests is rejected, the evidence would indicate that the relationship between X and Y is bilateral, which implies they are jointly determined.

This methodology is employed here to test for Granger-causal relationships between economic freedom, political freedom, and the level of economic well-being. Since the extent of any connection among these variables is unclear, a series of tests are performed using nine different equations. The first three equations are used to test for unilateral Granger causality of the level of economic well-being. Specifically, these equations allow for tests to determine if economic freedom Granger-causes economic well-being and if political freedom Granger-causes economic well-being. Those relationships are examined in time t for country i using EF as the measure of economic freedom, PF as the measure of political freedom, and $\ln GDP$ (the natural log of per capita GDP) as a measure of economic well-being in all the specified equations.³

³See the following section for a complete description of the data.

$$(1) \text{LnGDP}_{t,i} = \alpha_{1,i} + \beta_1 \text{LnGDP}_{t-1,i} + \nu_{t,i}^4$$

$$(2) \text{LnGDP}_{t,i} = \alpha_{2,i} + \beta_1 \text{LnGDP}_{t-1,i} + \theta_1 \text{EF}_{t-1,i} + \nu_{t,i}$$

$$(3) \text{LnGDP}_{t,i} = \alpha_{3,i} + \beta_1 \text{LnGDP}_{t-1,i} + \phi_1 \text{PF}_{t-1,i} + \nu_{t,i}$$

Equation (1) is used to control for the information contained in lagged values of the dependent variable while equations (2) and (3), which are extensions of equation (1), also include the information contained in lagged values of economic freedom and political freedom, respectively.⁵ In these equations, θ_1 and ϕ_1 are interpreted as the change in the natural log of per capita GDP that results from a one-unit change in the measures of economic freedom and political freedom, respectively. If equation (2) makes a significant contribution to the explanation of LnGDP over and above equation (1), the conclusion would be that EF Granger-causes LnGDP . This would mean that prior levels of economic freedom are significantly related to the current level of per capita GDP. If the results show that equation (3) makes a significant contribution to the explanation of LnGDP relative to equation (1), then PF Granger-causes LnGDP . Again, this would mean that prior levels of political freedom are significantly related to the current level of per capita GDP. To formally test if equations (2) and (3) make significant contributions to the explanation of LnGDP relative to equation (1), an F -test is used.⁶

The next three equations are used to test for unilateral Granger causality of economic freedom. Equations (4), (5), and (6) are used specifically to test if political freedom Granger-causes economic freedom and if the level of economic well-being Granger-causes economic freedom.

$$(4) \text{EF}_{t,i} = \gamma_{1,i} + \theta_2 \text{EF}_{t-1,i} + \nu_{t,i}$$

$$(5) \text{EF}_{t,i} = \gamma_{2,i} + \theta_2 \text{EF}_{t-1,i} + \phi_2 \text{PF}_{t-1,i} + \nu_{t,i}$$

$$(6) \text{EF}_{t,i} = \gamma_{3,i} + \theta_2 \text{EF}_{t-1,i} + \beta_2 \text{LnGDP}_{t-1,i} + \nu_{t,i}$$

If the null hypothesis that $\phi_2 = 0$ is rejected, equation (5) adds significantly to the explanation of EF and implies that PF Granger-

⁴The error terms ($\nu_{t,i}$) are assumed to be white noise. Each variable included in the study was tested using an augmented Dickey-Fuller test and judged to be stationary.

⁵A one-period lag structure was selected for all the specified equations to economize on degrees of freedom. The equations were also examined using a two-period lag structure, but the results did not differ substantially from those shown here. Results of the two-period lag specification are available from the authors upon request.

⁶A simple t -test can also be used in this case since the equations are specified with a one-period lag structure.

causes *EF* or that information contained in lagged values of political freedom makes a significant contribution to the explanation of current economic freedom. If the null hypothesis $\beta_2 = 0$ is rejected, equation (6) adds significantly to the explanation of *EF* and implies that *LnGDP* Granger-causes *EF* or that information contained in lagged values of the per capita GDP growth rate makes a significant contribution to the explanation of current economic freedom.⁷

The final three equations are used to test for unilateral Granger causality of political freedom. Specifically these equations are used to test if economic freedom and the level of economic well-being Granger-cause political freedom.

$$(7) PF_{t,i} = \lambda_{1,i} + \phi_3 PF_{t-1,i} + v_{t,i}$$

$$(8) PF_{t,i} = \lambda_{2,i} + \phi_3 PF_{t-1,i} + \theta_3 EF_{t-1,i} + v_{t,i}$$

$$(9) PF_{t,i} = \lambda_{3,i} + \phi_3 PF_{t-1,i} + \beta_3 LnGDP_{t-1,i} + v_{t,i}$$

If the null hypothesis that $\theta_3 = 0$ is rejected, equation (8) adds significantly to the explanation of *PF* and implies *EF* Granger-causes *PF* or that information contained in lagged values of economic freedom significantly improves the forecast of current political freedom. If the null hypothesis $\beta_3 = 0$ is rejected, equation (9) adds significantly to the explanation of *PF* and implies that *LnGDP* Granger-causes *PF* or that information contained in lagged values of per capita GDP significantly improves the forecast of current political freedom.

Additional information can be also be gathered if the results from the unilateral tests shown in equations (1) through (9) are compared to each other. For example, if *EF* is shown to Granger-cause *LnGDP* using results from the first three equations and *LnGDP* is shown to Granger-cause *EF* using the information provided in equations (4) through (6), the conclusion would be that the two are bilaterally related or jointly determined. Similar information can also be drawn for other possible bilateral relationships shown in the specified equations.

Data

A recently published work by James Gwartney, Robert Lawson, and Walter Block (1996) contains estimates of economic freedom (*EF*) for more than 100 countries over the 1975–95 period. Those estimates are based on objective information for each country in four

⁷In equations (6) and (9), $\beta_2/100$ and $\beta_3/100$ are interpreted as the absolute change in the dependent variable given a one percent change in per capita GDP.

component areas: (1) money and inflation, (2) government operations and regulations, (3) takings and discriminatory taxation, and (4) restrictions on international exchange. Ratings of each component are determined for five-year nonoverlapping periods (1971–75, 1976–80, 1981–85, 1986–90, and 1993–95). The component scores range from 0 to 10, with 10 representing the highest possible rating. From these ratings, three summary indexes for each country are calculated, each using a different weighting scheme. Since there is no clear evidence that one summary index is superior, we use an average of the three. Our study includes only four economic freedom observations per country (1975, 1980, 1985, and 1990) because of data limitations on other variables that are also used.

Political freedom (*PF*) is measured for each country using data reported in the annual *Freedom in the World* reports published by the Freedom House. This data is reported in two time series, one ranking political rights and the other ranking civil liberties. Each is measured using an ordinal seven-point scale with 1 representing the highest level of political rights or civil liberties and 7 representing the lowest. In our study, political freedom is measured as the sum of political rights and civil liberties. We averaged the data using five annual observations, so that it conforms to the measures of economic freedom in the Gwartney, Lawson, and Block study.

The level of economic well-being is captured in our regression equations by using the natural log of real per capita gross domestic product adjusted for changes in the terms of trade (*LnGDP*) available from the Penn World Tables, version 5.6 (see Summers and Heston 1991). As with political freedom, the data here are also averaged over five-year periods to conform with the Gwartney, Lawson, and Block measures of economic freedom.

The Granger-causality tests among the above variables use data gathered and examined separately for two groups of countries—an industrial group and a nonindustrial group. In the Gwartney, Lawson, and Block study, 20 industrial countries comprise one set of data for Granger-causality testing while 78 nonindustrial countries make up another set (see Table 1). The nonindustrial group includes as many countries as possible for which observations are available for the above variables.

The data set for each group of countries is similar to the one used by Blomstrom, Lipsey, and Zejan (1996), where a limited number of time-series observations from a large number of countries are pooled to capture and exploit the time-series properties of all countries together in an effort to explore for causal relationships. However, a risk in using pooled cross-sectional time series data is that cross-

TABLE 1
INDUSTRIAL AND NONINDUSTRIAL COUNTRIES INCLUDED
IN THE STUDY

Industrial	Nonindustrial	
1. United States	<i>Central and South America</i>	
2. Canada	1. Argentina	40. Nepal
3. Australia	2. Belize ^a	41. Pakistan
4. Japan	3. Bolivia	42. Philippines
5. New Zealand	4. Brazil	43. Singapore
6. Austria	5. Chile	44. South Korea
7. Belgium	6. Columbia	45. Sri Lanka
8. Denmark	7. Costa Rica	46. Taiwan
9. Finland	8. Dominican Republic	47. Thailand
10. France	9. Ecuador	
11. Germany	10. El Salvador	<i>Africa</i>
12. Iceland	11. Guatemala	48. Algeria
13. Ireland	12. Haiti	49. Benin
14. Italy	13. Honduras	50. Botswana
15. Netherlands	14. Jamaica	51. Burundi ^a
16. Norway	15. Mexico	52. Cameroon
17. Spain	16. Nicaragua	53. Central African Republic ^a
18. Sweden	17. Panama	54. Chad
19. Switzerland	18. Paraguay	55. Congo
20. United Kingdom	19. Peru	56. Ivory Coast
	20. Trinidad/Tobago	57. Gabon
	21. Uruguay	58. Ghana
	22. Venezuela	59. Kenya
	<i>Europe/Middle East</i>	60. Madagascar
	23. Cyprus	61. Malawi
	24. Egypt	62. Mali
	25. Greece	63. Mauritius
	26. Hungary ^a	64. Morocco
	27. Iran	65. Niger
	28. Israel	66. Nigeria
	29. Jordan	67. Rwanda
	30. Malta ^a	68. Senegal
	31. Portugal	69. Sierra Leone
	32. Romania ^a	70. Somalia
	33. Syria	71. South Africa
	34. Turkey	72. Tanzania
	<i>Asia</i>	73. Togo
	35. Bangladesh	74. Tunisia
	36. Fiji	75. Uganda
	37. India	76. Zaire
	38. Indonesia	77. Zambia
	39. Malaysia	78. Zimbabwe ^a

^aComplete data for 1975 are not available for these countries. Therefore only three observations were used (1980, 1985, and 1990).

country differences may be so significant as to overwhelm any time-series information that is available in the data. For example, distinctive, and perhaps unique, characteristics among countries can result in significant differences in the levels of economic freedom, political freedom, and economic well-being. If this country-specific information is not controlled for, it may bias the results and provide an inaccurate picture of any "true" relationship that may exist among the variables being studied. In an effort to control for country-specific information, a complete set of intercept dummy variables is included in each estimated regression equation.

Empirical Results

The ordinary least-squares parameter estimates for equations (1) through (9), which are used in the Granger-causality tests, are shown in Tables 2 through 4. The country dummy variables, which are included when estimating each of the specified regression equations to help control for country-specific information, do not have their parameter estimates shown in the tables so that attention can be focused on the parameters that are pertinent for testing.⁸ *A priori*, it is expected that, if a significant relationship is found to exist among any of the variables being studied, it should be positive.

The results displayed in Table 2 are used to test for unilateral Granger causality of the level of economic well-being. The empirical results indicate that past economic freedom is significantly related to the current level of real per capita GDP. This is shown by looking at the *t*- and *F*-statistics under the columns labeled equation (2). Similar tests show no evidence of a significant relationship between past political freedom and the current level of economic well-being, which is confirmed by reviewing the *t*- and *F*-statistics under the columns labeled equation (3). These findings—that economic freedom Granger-causes the level of economic well-being while political freedom does not—are present for both industrial and nonindustrial countries. The lack of support from the empirical evidence for a significant relationship between political freedom and economic well-being may be due to the fact that enhancements to political and civil liberties take considerable time to blossom in ways that could eventually lead to higher levels of economic well-being. Unfortunately, given the methodology used in this study, the limited amount of available data is not sufficient to adequately explore for that possibility.

⁸These parameter estimates are available from the authors upon request.

TABLE 2
RESULTS FOR GRANGER CAUSALITY OF ECONOMIC WELL-BEING
(Dependent Variable = $\ln GDP_t$)

Independent Variable	Industrial Countries (N = 60)			Nonindustrial Countries (N = 228)		
	Equation (1)	Equation (2)	Equation (3)	Equation (1)	Equation (2)	Equation (3)
$\ln GDP_{t-1}$	0.9573 (9.788)*	0.8840 (8.852)*	0.9408 (9.555)*	0.3055 (3.846)*	0.2829 (3.533)*	0.3196 (4.006)*
EF_{t-1}	—	0.0578 (2.118)**	—	—	0.0387 (1.699)**	—
PF_{t-1}	—	—	-0.0132 (-1.145)	—	—	0.0150 (1.425)
R^2	0.9448	0.9506	0.9467	0.9732	0.9737	0.9736
F-statistic	—	4.4870**	1.3130	—	2.8450***	2.0300

NOTES: t -statistics are in parentheses below estimated coefficients.

* statistically significant at the 99 percent level (one-tail test).

** statistically significant at the 95 percent level (one-tail test).

*** statistically significant at the 90 percent level (one-tail test).

The results reported in Table 3 are used to test for unilateral Granger causality of economic freedom. These results show that for both industrial and nonindustrial countries, the past level of real per capita GDP is a robust factor that significantly improves the explanation of current economic freedom. These results also show, for both sets of countries, that past political freedom makes no statistically significant contribution to the explanation of current economic freedom. This evidence implies that the level of economic well-being Granger-causes economic freedom while political freedom does not. These findings, along with those above, also suggest that the relationship between the level of economic well-being and economic freedom is bilateral or jointly determined. The bilateral relationship is not surprising since countries that experience a higher level of economic well-being in response to more economic freedom are likely to liberalize their economies even more.

The final set of results, which are shown in Table 4, are used to test for unilateral Granger causality of political freedom. These results indicate that the prior level of economic well-being positively Granger-causes political freedom for both industrial and nonindustrial countries.⁹ However, results once again show no statistically significant relationship between economic freedom and political freedom. Earlier results suggested that political freedom did not Granger-cause economic freedom and these findings suggest that economic freedom, likewise, does not Granger-cause political freedom. The lack of evidence of a Granger-causal relationship running in either direction between economic freedom and political freedom may reflect Friedman's comment that the relationship between these variables is very complex and difficult to determine. The one factor that does seem to tie these two together, however, is the level of economic well-being. This is shown to Granger-cause both economic freedom and political freedom, while economic freedom is shown to Granger-cause the level of economic well-being. This result seems to imply that the relationship between economic freedom and political freedom depends on the level of a nation's per capita GDP—that is, political freedom may be affected by the impact of real per capita GDP, which is affected by the level of economic freedom.

Conclusion

The Granger-causality methodology is employed in this paper to investigate for "causal" relationships among measures of economic

⁹Recall that the measures of political freedom range from 1 to 7, with 1 representing the most freedom. The negative sign for β_3 , the coefficient on $\ln GDP_{t-1}$, indicates that a higher economic growth rate is associated with enhancements to political freedom.

TABLE 3
RESULTS FOR GRANGER CAUSALITY OF ECONOMIC FREEDOM
(Dependent Variable = EF_t)

Independent Variable	Industrial Countries (N = 60)		Nonindustrial Countries (N = 228)		
	Equation (4)	Equation (5)	Equation (6)	Equation (4)	Equation (5)
EF_{t-1}	0.3079 (1.054) [†]	0.2722 (0.921) [†]	-0.1322 (-0.554) [†]	0.1682 (2.193)**	0.1718 (2.172)**
PF_{t-1}	—	-0.1156 (-0.910)	—	—	-0.0298 (-0.813)
$LnGDP_{t-1}$	—	—	4.6529 (5.326)*	—	—
R^2	0.8116	0.8156	0.8921	0.8546	0.8553
F-statistic	—	0.8280	28.368*	—	0.6600

NOTES: t -statistics are in parentheses below estimated coefficients.

* statistically significant at the 99% level (one-tail test).

** statistically significant at the 95% level (one-tail test).

*** statistically significant at the 90% level (one-tail test).

[†] An interesting finding for the industrial countries is the lack of statistical significance of θ_2 , the coefficient on EF_{t-1} in equations (4) through (6). If the equations are estimated without the dummy variables included, θ_2 is highly statistically significant for all three equations. This implies that cross-country differences among industrial nations do more to explain current economic freedom than does the past history of economic freedom.

TABLE 4
RESULTS FOR GRANGER CAUSALITY OF POLITICAL FREEDOM
(Dependent Variable = PF_t)

Independent Variable	Industrial Countries (N = 60)			Nonindustrial Countries (N = 228)		
	Equation (7)	Equation (8)	Equation (9)	Equation (7)	Equation (8)	Equation (9)
PF_{t-1}	0.5127 (9.987)*	0.5081 (9.739)*	0.4994 (9.897)*	0.2341 (2.832)*	0.2386 (2.882)*	0.2168 (2.619)*
EF_{t-1}	—	-0.0799 (-0.658)	—	—	-0.1743 (-0.976)	—
$LnGDP_{t-1}$	—	—	-0.7729 (-1.799)**	—	—	-1.0636 (-1.693)**
R^2	0.9123	0.9133	0.9192	0.8910	0.8917	0.8931
F-statistic	—	0.4340	3.2370***	—	1.4800	4.458**

NOTES: t -statistics are in parentheses below estimated coefficients.

*statistically significant at the 99% level (one-tail test).

**statistically significant at the 95% level (one-tail test).

***statistically significant at the 90% level (one-tail test).

freedom, political freedom, and economic well-being. The analysis is conducted using two sets of pooled cross-sectional time-series data: one for industrial countries and one for nonindustrial countries. In an effort to control for any cross-country differences, dummy variables are included in each data set.

The results indicate that both industrial and nonindustrial countries exhibit similar Granger-causal relationships among the variables studied. Specifically, the results show that economic freedom Granger-causes the level of economic well-being for both industrial and nonindustrial countries. In addition, the level of economic well-being is shown to Granger-cause economic freedom, suggesting a feedback effect or evidence that the two are endogenously related. For both sets of countries, evidence is also found that the level of economic well-being Granger-causes political freedom while no reciprocating evidence is found that political freedom Granger-causes the level of economic well-being, implying a univariate line of causation. Finally, no evidence is found of a Granger-causal relationship running in either direction between economic freedom and political freedom for industrial or nonindustrial countries.

These results confirm those of previous studies that show that economic freedom is an important factor driving growth, but they also indicate that there is a feedback effect occurring suggesting that the level of economic well-being also enhances economic freedom. Results in this paper provide no support for previous studies that suggest that political freedom significantly affects the level of economic well-being, but they do provide evidence for the reverse—that the level of economic well-being enhances political freedom. While we do not find support for a direct relationship between economic freedom and political freedom, the results do imply an indirect relationship through the level of real per capita GDP. Our findings indicate that economic and political freedom are related through the impact of economic freedom on the level of economic well-being and the subsequent impact that the level of economic well-being has on political freedom.

While this evidence does not definitively confirm any of the suggested causal relationships among the measures of economic freedom, political freedom, and economic well-being, it does provide information that there are some likely links that deserve further investigation. In addition, as more observations become available on each of the variables used in this study, supplemental analysis using this methodology can be undertaken to explore for alternative lag structures to ensure that these findings are robust and not model specific. Moreover, further disaggregation of the data could be examined for consistency

with these findings and for further insight into the components that comprise the various measures.

Perhaps Robert Skidelsky's (1995) statements that "No one knows how to make societies grow faster" and "The only safe rule is to create an environment in which enterprise can flourish" are true. A growing body of evidence seems to suggest that liberty is indeed important and necessary for the enhancement of economic well-being. As such, policies that are developed and implemented without considering what F. A. Hayek (1960) called "the constitution of liberty" are likely to yield disappointing results.

References

- Bardhan, P. (1993) "Symposium on Democracy and Development." *Journal of Economic Perspectives* 7: 45–49.
- Barro, R.J. (1991) "Economic Growth in a Cross-Section of Countries." *Quarterly Journal of Economics* 106 (May): 407–43.
- Barro, R.J. (1993) "Pushing Democracy Is No Key to Prosperity." *Wall Street Journal*, 14 December: A16.
- Barro, R.J. (1994) "Democracy: A Recipe for Growth?" *Wall Street Journal*, 1 December: A18.
- Barro, R.J. (1996) "Democracy and Growth." *Journal of Economic Growth* 1 (March): 1–27.
- Barro, R.J., and Sala-i-Martin, X. (1995) *Economic Growth*. New York: McGraw-Hill.
- Blomstrom, M.; Lipsey, R.E.; and Zejan, M. (1996) "Is Fixed Investment the Key to Economic Growth?" *Quarterly Journal of Economics* 111 (1): 269–76.
- Dasgupta, P. (1990) "Well-Being and the Extent of Its Realization in Poor Countries." *Economic Journal Conference Papers* 100: 1–32.
- Dasgupta, P. (1993) *An Inquiry into Well-Being and Destitution*. New York: Oxford University Press.
- Easterly, W., and Pritchett, L. (1993) "The Determinants of Economic Success: Luck and Policy." *Finance and Development*: 38–41.
- Freedom in the World: Annual Survey of Political Rights and Civil Liberties* (various issues). Boston: Freedom House.
- Friedman, M. (1962) *Capitalism and Freedom*. Chicago: University of Chicago Press.
- Gastil, R.D. (1978) *Freedom in the World*. Boston: Freedom House.
- Granger, C.W.J. (1969) "Investigating Causal Relations by Econometric Models and Cross-Spectral Methods." *Econometrica* 37: 424–38.
- Grier, K.B., and Tullock, G. (1989) "An Empirical Analysis of Cross-National Economic Growth, 1951–1980." *Journal of Monetary Economics* 24: 259–76.
- Grossman, G.M., and Helpman, E. (1994) "Endogenous Innovation in the Theory of Growth." *Journal of Economic Perspectives* 8: 23–44.
- Gwartney, J.; Lawson, R.; and Block, W. (1996) *Economic Freedom of the World: 1975–1995*. Vancouver, B.C.: Fraser Institute.

- Hanke, S.H., and Walters, S. (1997) "Economic Freedom, Prosperity, and Equality: A Survey." *Cato Journal* 17 (2): 117-46.
- Hayek, F.A. (1960) *The Constitution of Liberty*. Chicago: University of Chicago Press.
- Huber, E.; Rueschemeyer, D.; and Stephens, J.D. (1993) "The Impact of Economic Development on Democracy." *Journal of Economic Perspectives* 7: 71-85.
- Islam, S. (1996) "Economic Freedom per Capita Income and Economic Growth." *Applied Economic Letters* 3: 595-97.
- Kormendi, R.C., and Meguire, P.G. (1985) "Macroeconomic Determinants of Growth: Cross-Country Evidence." *Journal of Monetary Economics* 16: 141-63.
- Levine, R., and Renelt, D. (1992) "A Sensitivity Analysis of Cross-Country Growth Regressions." *American Economic Review* 82(4): 942-63.
- Levine, R., and Zervos, S.J. (1993) "What Have We Learned About Policy and Growth from Cross-Country Regressions?" *American Economic Review* 83: 426-30.
- Lucas, R. (1988) "On the Mechanics of Economic Development." *Journal of Monetary Economics* 22: 3-42.
- Mankiw, N.G.; Romer, D.; and Weil, D. (1992) "A Contribution to the Empirics of Economic Growth." *Quarterly Journal of Economics* 107: 407-37.
- Pack, H. (1994) "Endogenous Growth Theory: Intellectual Appeal and Empirical Shortcomings." *Journal of Economic Perspectives* 8: 55-72.
- Pennar, K.; Brady, R.; Lindorff, D.; Rossant, J.; and Smith, G. (1993) "Is Democracy Bad for Growth?" *Business Week*, 7 June: 84-88.
- Przeworski, A., and Limoni, F. (1993) "Political Regimes and Economic Growth." *Journal of Economic Perspectives* 7: 51-69.
- Romer, P.M. (1994) "The Origins of Endogenous Growth." *Journal of Economic Perspectives* 8: 3-22.
- Ryan, J.E. (1994) "Prosperity Needs Democracy." *Wall Street Journal*, 24 January: A13.
- Scully, G.W. (1988) "The Institutional Framework and Economic Development." *Journal of Political Economy* 96: 652-62.
- Scully, G.W. (1992) *Constitutional Environments and Economic Growth*. Princeton, N.J.: Princeton University Press.
- Skidelsky, R. (1995) *The Road from Serfdom*. New York: Penguin Books USA.
- Solow, R.M. (1994) "Perspectives of Economic Growth." *Journal of Economic Perspectives* 8: 45-54.
- Summers, R., and Heston, A. (1991) "Penn World Table (Mark 5): An Expanded Set of International Comparisons, 1950-1988." *Quarterly Journal of Economics* 106: 327-68.

BANKING STRUCTURES, MARKET FORCES, AND ECONOMIC FREEDOM: LESSONS FROM ARGENTINA AND MEXICO

William C. Gruben

The successes or failures of monetary reforms in Latin America have depended on the financial liberalizations that accompanied them and on the peculiarities of attendant financial regulations and provisions. The absence of guarantees to make bank depositors whole in a financial crisis, for example, signifies a far different distribution of likely patterns of monetary growth and exchange-rate pressures than a more conciliatory treatment of depositors would have, even if a government is otherwise committed to tight money and a strong currency. More generally, the economic literature on monetary arrangements has shown increased appreciation of the links between official protections for financial institutions in newly liberalized environments, subsequent banking crises, and exchange-rate volatility (McKinnon and Pill 1996, Kaminsky and Reinhart 1996, Krugman 1998). Of particular concern in this context are how problems of moral hazard metastasize under financial liberalization when government guarantees abridge market discipline.

This paper presents evidence of the linkages between market discipline, government guarantees, bank performance, and exchange-rate stability in Argentina and Mexico. As will be detailed, Mexico's encompassing deposit guarantee program was associated with risky lending behavior beginning during the 1991–92 bank privatizations. The resulting bank crisis offered unresolvable tensions in the goals of monetary policy—preserving the banks versus preserving the exchange rate—and motivated a policy trajectory that had much to do with the subsequent exchange-rate crisis.

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In contrast, Argentina offered little succor for risky banks or their depositors and weathered the exchange-rate crises in the middle (and again in the late) 1990s.¹ Argentina's limitations on deposit guarantees and its restrictions against bank bailouts were followed by a wave of bank privatizations in which, in contrast to the Mexican experience, the typical bank did not engage in behavior that would be measurable *ex ante* as risky. When the Asian financial crises of fall 1997 stampeded investors even out of non-Asian emerging markets, including Argentina's, a governmental conflict between supporting the banks and supporting the currency did not materialize.

While no single empirical model yields all of the foregoing narrative, the results of various researchers' econometric models of the Argentine and Mexican financial systems offer varieties of evidence that have not until now found their way into the literature. The consideration of these several models together allows them to yield conclusions collectively that their constructors could not and did not draw piecewise.

Of particular interest in this context is that, in the wake of Argentina's success in weathering the Tequila crisis, Latin American banking policymakers moved toward more policies to facilitate market-based regulation and discipline—not only in Mexico and in Brazil but even in Argentina. The move is important not only because of Argentina's positive outcomes, but because of the increasing evidence to suggest that many indicators typically used by regulators to assess bank health and to identify bank problems have been shown to be misleading. That is, more than in industrial countries, banking crises in Latin American can be surprises for regulators, rather than anticipated and therefore planned for. Moving to policies that offer market-based signals so as to create market-based discipline may be seen as particularly crucial in societies in which indicators that are not market-based do not function well.

Two Contrasting Episodes in the Tequila Crisis

Even though this paper will address bank regulation events leading up to the Tequila Crisis of 1994–95, it is useful to begin by recounting some econometric results of a study of the crisis itself. The Mexican exchange-rate and financial crisis triggered a rush of capital out of other Latin American countries, as well as out of the Philippines and

¹It can be argued that Mexico's exchange-rate crisis of 1994–95 was triggered by a banking crisis while Argentina's banking crisis of the same period was triggered by an exchange-rate crisis—or certainly by capital outflows associated with an attack on the currency (see Santiprabhob 1997).

Poland. Those problems, known as the “Tequila effect,” contributed to banking problems in a number of countries, including not only Mexico but Argentina. However, the impact of the Tequila effect on bank depositor behavior differed by country. These differences in depositor behavior are not only important in and of themselves, but they tell us much about what precipitated the Tequila Crisis to begin with.

In an econometric model of the relation between deposit inflows or outflows and bank asset quality, Robert Moore (1997) found that depositor behavior in Argentina during the Tequila Crisis was consistent with what policymakers had hoped that minimal deposit insurance would do for market discipline. That is, during the crisis of 1995, deposit flows were significantly and inversely related to bank asset quality. The worse a bank was, the more likely were depositors to pull their money out of it. Bankers who had anticipated such disciplining behavior may be seen as less likely to take risks with depositor money.

In the Mexican case, in which depositor losses would be covered by a very generous deposit insurance program, Moore (1997) found that depositors were indifferent to the asset quality of a bank. Specifically, during the 1995 crisis, deposit flows were not significantly related either positively or negatively to bank asset quality.

1991: Argentina’s Currency Board Means Few or No Deposit Guarantees

Having addressed a peculiarity of bank depositor behavior during the Tequila Crisis, I now turn to earlier events in Argentina and Mexico. These events help to explain not only the foundation of differences in Argentine and Mexican depositor behavior but the Tequila Crisis itself. They also help to explain bank behavior during Argentina’s recent bank privatizations. When Argentina in April 1991 adopted the Convertibility Plan, which included a monetary regime based on a fixed exchange rate with full convertibility of the peso into U.S. dollars and bimonetarism, the point was to put control of the money supply out of reach of political pressures. Any attempt to issue currency above this endogenous amount would result in a loss of reserves and a threat to the convertibility of the peso.

This monetary straitjacket was, in large part, fitted to avert certain political intrusions by the nation’s banks (Fernandez and Schumacher 1998).² In the past, during economic crises, the banking system had

²It is important to understand that the Convertibility Plan and attendant legislation, liberalization, and reforms were part of a so-called big-bang in which notions of optimal sequence of policy measures were disregarded (see Rozenwurcel and Bleger 1996:1). The establishment of a currency board monetary regime with full convertibility was accompanied by a tax reform in the same year. Equity markets were deregulated the next year.

been behind political pressures that led to inflationary behavior by the government. A combination of deposit insurance and central bank intervention had effectively guaranteed that all of a commercial bank's liabilities, however small or large, would be made whole. Banking system bailouts had in the past resulted in fiscal deficits. Since attendant economic difficulties had typically abridged the government's revenue-generating abilities, the deficits would be monetized.³

Starting with the onset of the Convertibility Plan, government deposit insurance was gradually eliminated. In 1991, the government of Argentina curtailed coverage of the existing insurance to \$1,000, and a year later even that was removed. In 1995, a new deposit insurance program appeared. The program, which was funded in total by the banks and without government fiscal commitments, offered coverage of \$10,000 to \$20,000 depending on the maturity and the interest rate paid. Econometric evidence suggests that depositors tended to treat the insurance as if it did not exist in the early stages of the program (Schumacher 1997). At the time the full effect of the Tequila Crisis was felt, the banks had made such small contributions to the insurance fund that for practical purposes it did not exist (Schumacher 1997, Fernandez and Schumacher 1998).

The explicit purpose of the removal of deposit insurance in 1991, and also of an attendant minimal bailout policy, was to make depositors and other bank debt holders exercise market discipline to discourage banks from risky behavior.⁴ Other measures to reduce the political pressure for bailouts included high reserve requirements. The assumption was that if banks were forced to remain highly liquid, capital market volatility and large declines in asset values would be less likely to trigger systemic problems in banking. In another effort to impose a cushion against these same problems, Argentine regulations imposed heavier capitalization for what were perceived as riskier assets or banks.⁵ Higher capitalization requirements overall were imposed to discourage risky behavior. Policymakers reasoned that by increasing

³Fernandez and Schumacher (1998) note that, as of December 1989, the total loss incurred by the Central Bank for deposit insurance and different forms of bank bailouts was \$14.6 billion. This sum was roughly the size of all private bank assets when the 1991 Convertibility Plan, which established Argentina's currency board, was initiated.

⁴Carlos Zarazaga (1995:16) notes that, despite the textbook conventions respecting currency boards, the Argentine monetary base and Argentina's foreign reserves did not maintain exactly the same value or move exactly the same way. The difference occurred because "unlike the orthodox currency board, Argentina's convertibility law gives the central bank some flexibility to act as a lender of last resort."

⁵As will be discussed, the functionality of such capitalization requirements in a Latin American context may be seen as considerably less than in the financial systems of industrialized nations.

the amount of shareholder wealth placed at risk, they would increase the likelihood of shareholder monitoring of bank behavior—particularly of risky behavior.

Mexico Takes a Different Approach to Financial Liberalization

At the same time that Argentina was liberalizing its financial system, so was Mexico. Prior to moving toward the market, Mexico suffered a classic case of financial repression.⁶ In 1989, however, Mexico introduced reforms to eliminate controls on interest rates and on the term structure of traditional types of bank deposits, eliminated forced loans to the public sector at below-market interest rates, and eliminated governmental edicts on the industry-by-industry allocation of funds. Mexico had nationalized all but two commercial banks in 1982. During the period from June 1991 until July 1992, Mexico auctioned off to the private sector all 18 government-owned commercial banks. Despite these strong efforts to allow markets to operate, Mexico continued to provide full insurance coverage for almost all depositors under a program known as FOBAPROA (Fondo Bancario de Protección al Ahorro). For practical purposes, the Mexican government provided an insurance program whose protection of depositors was virtually complete.

While such coverage may have been comforting to depositors, it can weaken the competitive advantage that financially strong banks would otherwise gain from doing what made them strong. When government safety nets prevail, bank liability holders (including deposit holders) are less responsive to changes in bank risk—that is, depositors do not punish riskily managed banks by fleeing them (Moore 1997). It may be expected that banks under a system of government guarantees for depositors would be motivated, under some circumstances, to make riskier loans than banks without such

⁶The phenomenon of financial repression, typical of developing countries in the postwar period, involves a considerably stronger governmental role in financial markets than typically appears in developed countries. In an effort to subsidize certain economic sectors or industries, governments in financially repressive markets may impose deposit interest rate ceilings and also dictate loan rates and the industries that will receive the loans. Government may also force the banking system to lend to it and to make the loans at below-market interest rates. High reserve requirements may be imposed, not as in developed countries to restrict monetary expansion, but to allow the government to capture the resources of the financial system. Some of these measures may be reminiscent of what Asian countries did prior to the financial crises of 1997. Because the public has many options when it wants to purchase assets, high financial repression typically means that the banking system manages to capture only a small portion of public assets. The social cost can be investment levels far below what a free market would permit.

supports. Some of these circumstances materialized in the early 1990s, with the privatization of the Mexican banks.

In addition to depositor guarantees, another motivation toward expansive and perhaps risky lending behavior was that Mexican banks in the wake of the financial liberalizations initiated in 1989 were awash with new liabilities. Financial liberalization in a financially repressed system like Mexico's can motivate massive shifts of assets from other sectors (or from financial institutions abroad) into the domestic financial system. This is exactly what took place in Mexico. The ratio of M2 to gross domestic product rose from 7.1 percent to 30 percent between 1988 and 1994.⁷

Accordingly, when Mexico's banks were privatized into a far freer financial market environment than the country had seen in decades, the banks did indeed commence risky behavior. Immediately after privatization, the typical Mexican commercial bank produced loans and other financial services to a point at which marginal cost exceeded marginal revenue (Gruben and McComb 1997). While such behavior could not be pursued in the long run, it is consistent in the short run with a struggle for market share—a struggle in which the Mexican banks had great motivation to engage.

Indeed, despite the obvious possibilities for bad outcomes from such market-share struggles, there is much to recommend them if an institution can survive their early stages. There is much to recommend them, at least in the context of retail banking, because of the tendency toward brand loyalty in consumer finance. For example, a survey of U.S. credit card users found that consumers are prone to use—for a particularly long time or to a particularly high degree—the first card they received (*Wall Street Journal* 1996).⁸ The problem under a system of deposit insurance like Mexico's is that, when the risks do not pay off for the bankers, they are paid for by the taxpayers. The Mexican banks' risky behavior soon had results that could be expected. Delinquent loans as a percentage of total loans moved from 3.9 percent at the end of 1991 to 5.5 percent a year later to 8.3 percent in September 1994.

⁷Argentina's financial system saw major increases as well, although the reason has perhaps to do with the reduction in inflation and somewhat less to do with financial liberalization than in Mexico's case. The same ratio, M2-GDP, for Argentina went from 0.3 percent in 1988 to 31.4 percent in 1994.

⁸A very important part of the overall expansion of credit by the newly privatized banks was, in fact, credit card debt. During the ensuing Mexican banking crisis, the delinquency rate for Mexican credit card debt was among the highest of all types of loan delinquency rates at Mexican banks. Credit records of consumer borrowers were often very sketchy as, at this time, there were no generalized consumer debt reporting agencies in Mexico.

Although risky bank behavior was an important factor in precipitating the Tequila Crisis, it was not the only one. Mexico intervened strongly in foreign exchange markets in an effort to peg its currency to the U.S. dollar, but several factors made those efforts more difficult as the decade of the 1990s ensued. Among the most important factors were highly volatile capital inflows to and outflows from Mexico, and tightening U.S. monetary policy.

During the early 1990s, high rates of capital inflow characterized the emerging markets of Latin America in general, owing to a combination of optimistic outlooks for the region's newly liberalized economies and low U.S. interest rates. Through this mechanism, Mexico accumulated large stocks of foreign currency reserves that it could use to defend the peso in times of weakness. The capital inflows represented such a large increase in the demand for pesos that Mexico's exchange-rate pegging problem at the time involved holding the exchange-rate down, not up.

During the first quarter of 1994, however, U.S. monetary policy began to tighten, raising U.S. interest rates and attracting capital back to the United States. If Mexico did not raise interest rates, or pursue other efforts to make Mexico a more attractive place for investment, the result would be diminished demand for the peso and increased pressure for devaluation. At this time in Mexico, preparations were being made for the presidential elections later that year. In March 1994, ruling PRI party presidential candidate Luis Donaldo Colossio was assassinated. Foreign currency reserves fell profoundly just after the March assassination but stabilized in April. To hold foreign capital in the country and reduce pressure on the peso, Mexico raised interest rates significantly, signaling that exchange-rate preservation remained important. But U.S. interest rates were also rising, and they continued to rise throughout the year.

In the third quarter and into the early fourth quarter, Mexico relaxed its interest rate intervention somewhat, even though U.S. rates continued to move up. Moreover, during the second half of 1994, real central bank domestic credit outstanding to Mexican commercial banks remained relatively high. Mexico was compensating declines in international reserves by increasing domestic credit, a step 180 degrees in opposition to Argentina's approach.

A nation cannot peg or fix its currency, permit international capital to come and go freely, and pursue a monetary policy independent of the nation to whom it has pegged its currency. So why would Mexico try? In a 1995 article in the *Wall Street Journal*, the governor of Mexico's central bank explained his country's divergence from U.S. monetary policy (which involved continued increases in interest rates

throughout the year), saying that “had domestic credit expanded less, interest rates would have soared to levels that would have caused severe economic disruptions” (Mancera 1995). His statement may be seen as an acknowledgment both of the difficulties in 1994 in the Mexican banking system and of the tension between avoiding such difficulties and of tightening Mexican monetary policy to discourage the capital outflows that had begun to characterize the nation’s international financial accounts.

A central bank can always preserve a pegged exchange rate, as Mexico’s was at this time, through a sustained high interest rate or a contraction in the monetary base.⁹ Interest rates insufficient to prevent declining reserves suggest that other policies—such as preserving the solvency of Mexico’s banking system—were dominating the central bank’s commitment to a pegged exchange rate (Garber and Svensson 1994: 29).

In late November 1994, Mexico began to suffer massive capital outflows that culminated in an official announcement on December 20 that the peso would be officially devalued from 3.47 pesos per dollar to 3.99. The announcement triggered massive capital flight and a devaluation far more profound than the what the government had announced. By January 27, 1995, the exchange rate had moved to 5.75 pesos per dollar. The Mexican devaluation and financial crisis triggered a rush of capital out of other Latin American countries, as well as out of the Philippines and Poland.

Argentina’s Bank Privatization

Argentina’s major efforts at bank privatization did not occur until after the Tequila Crisis. Despite Argentina’s policy rationalizations of 1989–92, the government’s role in the banking sector was still strong. It is true that, unlike Mexico, financial repression is said not to have characterized the financial policy of Argentina since a financial liberalization effort during the late 1970s (Rozenwurcel and Bleger 1997), although credit allocation was not made completely market driven at that time. By the time of the Tequila Crisis, interest rates had long since been largely market determined.

Despite this perceived relative liberality, the role of financial institutions was relatively small in the years preceding the Convertibility

⁹In fact, the rule to apply this option is what made Argentina’s Convertibility Plan rules during capital outflows exactly the opposite of Mexico’s sterilization or offset policy. When Mexican reserves flowed out, they were offset with increases in central bank credit to the domestic banking system. When Argentine reserves flowed out, the Argentine monetary base was allowed to fall.

Plan although it had increased markedly by the end of 1994. An important reason was that high inflation during the late 1980s and very early 1990s discouraged Argentines from holding Argentine money. An additional problem for the Argentine financial system was that, prior to the Tequila Crisis, publicly owned banks held almost 39 percent of total deposits and granted almost 42 percent of total loans. The politicized nature of public financial intermediation meant that these institutions were virtual storehouses for past-due loans.

In addition, despite increasing requirements for bank capitalization, scores of privately owned banks found themselves inadequately capitalized when the crisis came. If any of them doubted that the central bank would fail to rescue them, their doubts were soon allayed. As of November 1994, there were 137 private sector banks, which accounted for 57 percent of all bank assets. In addition, there were 32 banks owned by federal, provincial, or municipal governments. By December 1995, out of a total of 137 private banks, 9 had failed and more than 30 had been either acquired or merged into a single bank.

When the privatizations did occur in Argentina, the greater market orientation of the regulatory system was expressed in substantially different post-privatization bank behavior than had been seen earlier in the decade in Mexico. To identify such differences, Jahyeong Koo and I constructed an econometric model of the market contestability of the Argentine commercial banking system and designed it to test for structural breaks in performance at various times (Gruben and Koo 1997). We tested for breaks during the period of most intense privatization, 1995.I-1997.I, during which three-fourths of the privatization occurred that had taken place in the decade. We also tested for behavioral breaks during other periods in the decade and examined whether there were any periods during which a typical bank produced where marginal cost exceeded marginal revenue or produced at levels suggestive of collusive behavior. In contrast to the Mexican case, Argentina did not show any period in which the typical bank operated where marginal cost exceeded marginal revenue. This result is particularly striking not only because of the difference from the Mexican outcome, but because it diverges from a study of the Canadian liberalization of the early 1980s.

In a study of the Canadian liberalization of the early 1980s, Sherrill Shaffer (1993) found a structural break point at the liberalization. After the liberalization, the typical bank began to run at a point at which marginal revenue exceeded marginal cost, again suggesting a risky market-share struggle like Mexico's. With reference to Shaffer's findings in the context of the role of deposit guarantees and risky bank behavior, it should be noted that Canada maintained a policy

of no deposit insurance through 1966, but that significant guarantees were introduced in 1967. Moreover, in 1983, the maximum size of a deposit that could be insured in Canada was increased to \$60,000 Canadian. Moreover, the Canadian system charges its participating banks less than its costs and typically therefore runs large deficits. Underpricing of this type follows a model routinely noted as conducive to the very sort of moral hazard that would trigger risky bank behavior, certainly during periods when motivations to fight for market share exist.

What Comes Next?

There is increasing evidence to suggest that if developed countries need market discipline in their financial systems, developing countries need even more. Lilita Rojas-Suarez (1998) offers palpable statistical evidence to show that in Latin American countries, for example, it is common for banks defined as in crisis to still have capital-to-risk-weighted asset ratios well within international standards. She also shows that, contrary to the predictions of traditional early warning systems for banks, it is typical for liquidity ratios of problem banks in Latin America actually to be higher than banks that turned out not to be in crisis. In sum, financial ratios traditionally used by financial regulators are “useless as supervisory tools when accounting standards and reporting systems are inappropriate” (Rojas-Suarez 1998: 6).

In the wake of banking problems associated with the Tequila Crisis, financial regulators have become increasingly sensitive to the importance of the market mechanism. They are accordingly turning to the market. Recognizing the effectiveness of Argentina’s approach to discouraging risky bank behavior, Mexican policymakers are moving to reduce deposit insurance to a program designed to protect small depositors, but not to protect those with sufficiently large deposits to suggest some skills at monitoring the behavior of the banks where they keep their money. Meanwhile, the Argentines have moved even farther in their programs to make the market discipline the banks. Under a new set of rules, Argentine banks must issue subordinated debt equivalent to 2 percent of total bank assets. Since the debt is subordinated, signifying that its holders are at the end of the cue of creditors in the event of a bank closure, holders are expected to monitor bank behavior with particular care. Accordingly, the prices of such debt are suspected to be a particularly strong signal of bank health and clearly stronger—as Rojas-Suarez’s results suggest—than capitalization and liquidity ratios might be.

Conclusion

A consideration of differences between the Argentine and Mexican banking systems, even though both faced financial crisis during the Tequila Crisis of 1994–95, is that the market-discipline-oriented policies of Argentina were more fully disposed to preserving prudent bank performance and to discouraging high risk behavior than the more traditional protections offered depositors by generous insurance programs. The problem with such programs is, despite the virtues they may have for depositors, they loosen market discipline on bankers, since bankers are less surely punished by the government than they are by a market in which government does not intrude.

These problems may be seen in considering Moore's (1997) results on depositor behavior toward bad banks in the two countries during the Tequila Crisis. Argentine depositors fled unhealthy banks, while Mexican depositors—protected by a generous deposit insurance—did not exercise such discipline. The lack of such market discipline in Mexico and its presence in Argentina could be seen in differences in post-privatization bank performance in the two countries. Gruben and McComb (1997) showed that, supported by depositor guarantees and other bank supports, the typical newly privatized banker ran his institution to a point where marginal cost exceeded marginal revenue. This was not a completely irrational stratagem, since those who followed it and did not go bankrupt were likely to finish the effort with greater market share than otherwise. Unfortunately, the cost of failure in the exercise was borne by the taxpayers. In contrast, Gruben and Koo (1997) showed that in the Argentine case, where market discipline was surer, the typical bank did not run where marginal cost exceeded marginal revenue. That is, the typical bank did not take inordinate risks in efforts to gain market share.

As it has become more widely recognized that market discipline offers a more stable banking system than does purely government discipline, Latin American banking regulations have been moving in the direction of market discipline. Mexico is moving toward an Argentine approach while Argentina is moving even more completely toward market signaling and market discipline as the keystones of national financial stability.

References

- Fernandez, R.B., and Schumacher, L. (1998) "The Argentine Banking Panic after the 'Tequila' Shock: Did 'Convertibility' Help or Hurt?" In S.S. Rehman (ed.) *Financial Crisis Management and Regional Blocks*. Boston: Kluwer.

- Garber, P.M., and Svensson, L.E.O. (1994) "Operation and Collapse of Fixed Exchange Rate Regimes." National Bureau of Economic Research Working Paper No. 4971, December.
- Gruben, W.C., and Koo, J. (1997) "Contestability and Capital Flows in Argentina's Banking System." Federal Reserve Bank of Dallas. Paper presented at the Second Annual Meetings of the Network of Central Bank Researchers of the Americas, Bogotá.
- Gruben, W.C., and McComb, R.P. (1997) "Privatization, Competition and Supercompetition in the Mexican Commercial Banking System." Federal Reserve Bank of Dallas. Paper presented at the 1997 meetings of the Latin American and Caribbean Economics Association, Bogotá.
- Kaminsky, G., and Reihnart, C. (1996) "The Twin Crises: The Causes of Banking and Balance of Payments Problems." Federal Reserve Board of Governors International Finance Discussion Paper No. 544. Washington, D.C.
- Krugman, P. (1998) "Bubble, Boom, Crash: Theoretical Notes on Asia's Crisis." Mimeo. Massachusetts Institute of Technology.
- Mancera, M. (1995) "Don't Blame Monetary Policy." *Wall Street Journal*, 31 January: A18.
- McKinnon, R I., and Pill, H.(1996) "Credible Liberalizations and International Capital Flows: The 'Over-Borrowing Syndrome.'" Memorandum No. 314. Center for Research in Economic Growth, Stanford University.
- Moore, R.E. (1997) "Government Guarantees and Banking: Evidence from the Mexican Peso Crisis." Federal Reserve Bank of Dallas *Financial Industry Studies* (December): 13–21.
- Rojas-Suarez, L. (1998) Early Warning Indicators of Banking Crises: What Works for Emerging Markets?" Paper presented at the January 1998 Meetings of the Allied Social Sciences Association, Chicago. Inter-American Development Bank, Washington D.C.
- Rozenwurcel, G., and Bleger, L. (1996) "Argentina's Banking System in the Nineties: From Financial Deepening to Systemic Crisis." Mimeo. University of Buenos Aires.
- Santiprabhob, V. (1997) "Bank Soundness and Currency Board Arrangements: Issues and Experience." International Monetary Fund Paper on Policy Analysis and Assessment, PPAA-97-11.
- Shaffer, S. (1993) "A Test of Competition in Canadian Banking." *Journal of Money, Credit, and Banking* 25: 49–60.
- Schumacher, L. (1997) "Information and Currency Run in a System Without a Safety Net: Argentina and the Tequila Shock." Mimeo. George Washington University.
- Wall Street Journal* (1996) "Business Bulletin." 25 July: A1.
- Zarazaga, C.M. (1995) "Argentina, Mexico and Currency Boards: Another Case of Rules Versus Discretion." Federal Reserve Bank of Dallas *Economic Review* (Fourth Quarter): 14–24.

OFFICIAL ASSISTANCE, ECONOMIC FREEDOM, AND POLICY CHANGE: IS FOREIGN AID LIKE CHAMPAGNE?

Ian Vázquez

Foreign aid has had, and continues to have, a multiplicity of goals. Five decades of development assistance have provided an adequate historical record by which to judge to what extent aid successfully meets those goals and whether it has lived up to the aspirations of its architects or the expectations of its critics. The record also allows us to compare how aid is used and disbursed in practice with its use and disbursal in theory, something which has forced proponents, if not practitioners, to be more realistic about what aid can accomplish. Moreover, a broad consensus has emerged in recent years about the kind of policy environment necessary for economic growth, namely, the need for market-oriented policies.

In light of foreign aid's record, the traditional rationales for providing official development assistance have weakened, leading to the rise of new, plausible-sounding missions. An evaluation of aid's effectiveness in the past and of its likely effectiveness in achieving goals now emphasized by its proponents—the promotion of market reforms in developing countries and of self-sustaining growth in countries that do reform—will help in determining how much hope should be placed in continuing aid flows. Such an evaluation will also help determine whether we can expect the case for aid to be made almost regardless of its record, as Peter Bauer (1981: 91) observed when he stated, “Aid is thus like champagne: in success you deserve it, in failure you need it.” Bauer noted that proponents of foreign assistance will claim the need for aid irrespective of a country's performance. Now that the market-liberal revolution has included developing countries

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around the world, aid advocates seem to be saying that the world needs development assistance more than ever. But there is little reason to prematurely celebrate the latest promises of foreign aid and every reason to believe that the world would be better off if we put away the champagne.

Aid Effectiveness

A number of recent reports have looked at the effectiveness of official development assistance, which the OECD defines as concessional aid flows from official bilateral or multilateral agencies that aim to promote economic development and welfare in poor countries and that contain at least a 25 percent grant component. Those studies have reported discouraging economic results among countries that have received development aid for decades. The United Nations *Human Development Report* (UNDP 1996: 1), for example, found that over the past 15 years economic decline and stagnation in 100 countries has reduced the income of 1.6 billion people. "In 70 of these countries," the report states, "average incomes are less than they were in 1980—and in 43 countries less than they were in 1970." Peter Boone (1994a: 24) looked at aid flows to 97 countries from 1971 to 1990 and found that "aid does not create, nor correlate with, those underlying factors which cause growth." Those findings are roughly in line with Paul Mosley (1987) and the Congressional Budget Office (1997: xi), which stated that "foreign aid overall appears to have only a marginal effect" on development and may even hinder it.

Using a sample of 73 countries from 1971 to 1995, I also looked at the correlation between aid flows from virtually all official sources and economic growth. The findings are consistent with those of Boone and Mosley. Neither aid per capita nor aid as a percentage of GDP was positively correlated with economic growth. (In fact, aid as a percentage of GDP has a slightly *negative* correlation with economic growth.) When broken down by the various aid sources, the lack of any positive correlation with growth holds despite the fact that the various bilateral and multilateral agencies have emphasized different approaches to lending (the World Bank, for example, only lends to governments, while the U.S. Agency for International Development can provide credit directly to nongovernmental organizations and other private groups) even though a common principle objective has been the promotion of growth.

Of course, growth is not the only goal of foreign aid. Political objectives like purchasing security or promoting democracy and human rights have often been part of foreign assistance. But those

goals are not directly aimed at improving economic welfare as is official development assistance (which can admittedly be indirectly affected by such noneconomic objectives). The main economic rationales have steadily lost force.

One major rationale for aid in the early post-World War II era was to substitute for the lack of developed private capital markets that could benefit poor countries. The scarcity of investment capital, both at the international level and within developing countries, was said to have hindered growth prospects of poor countries and even condemned them to perpetual misery. However dubious those assumptions were (see Lal 1996, Bauer 1972), abundant private capital flows to developing nations, which now dwarf official development assistance, undermine the need for aid agencies to fill that role. Does aid at least stimulate additional private capital flows? Boone (1994a: 20), Dani Rodrik (1996: 190), and James Burnham (1996) suggest there is little or no evidence for this.

Another argument marshaled in favor of aid is that it be used to reduce poverty and address basic human needs. Here again, the record of aid in practice has strayed far from theory. Boone (1994b: 4, 21), for example, found "no significant impact of aid on improvements in infant mortality, primary schooling ratios nor life expectancy." He further concluded that "there is strong evidence that aid flows primarily benefit a wealthy political elite . . . and does not benefit the poor." Similar conclusions were reached by Mosley (1987) and by the World Bank's (1994) discovery that despite \$200 billion of infrastructure investment in the developing world, most of it bypasses the poor. The Bank's finding is especially damning since so much development assistance has gone to infrastructure.

Another justification for aid is to redress inequality in developing countries, something that is often associated in the literature with economic growth and liberalization (see, for example, UNDP 1996). This argument is particularly wrongheaded since it tends to treat poverty alleviation and the reduction of wealth inequalities as though they were the same thing; it is also misleading since aid probably helps widen the gap between the elite and the poor given the way it is ultimately disbursed. Economic growth, furthermore, is positively correlated with poverty redressal, but some studies have found no correlation with reductions in income inequality (Lal and Myint 1996: 39–41). In other words, growth sometimes coincides with increases in income inequality and sometimes does not; growth does, however, increase poor people's incomes. Steve Hanke and Stephen Walters (1997: 140–42), on the other hand, found that growth promotes

income equality, thus confirming Gerald Scully's (1992) earlier research.

The reasons aid has proved so disappointing are varied and many of them are well known. They include public choice reasons (aid agencies, aid officials, and recipient governments face incentives to continue or increase aid flows independent of how well those funds are used); multiple and conflicting goals within and among aid agencies; the politicization of developing economies (most aid goes to governments at the expense of the private sector and civil society); aid increases consumption (mostly by governments) but does not increase investment; and most aid is disbursed to governments that maintain policy environments inimical to economic growth. One reason aid does not improve basic human development indicators even when that is the explicit purpose of such aid is that the assistance is totally fungible (Feyzioglu, Swaroop, and Zhu 1996). Not only do governments use balance-of-payments support to fund their preferred projects; it appears that governments behave the same way even in the case of aid-supported social expenditures and other types of project aid.

The case for foreign aid has been weakened further by research that has identified the real sources of economic growth. While aid cannot be shown to cause growth, a number of studies (Gwartney and Lawson 1997; Johnson, Holmes, and Kirkpatrick 1998; Messick 1996; and Hanke and Walters 1997) have established a strong link between economic freedom and economic prosperity. James Gwartney and Robert Lawson (1997), in the most sophisticated and comprehensive of the first three studies, tracked the level of economic freedom in more than 100 countries from 1975 to 1995, looking at 17 variables in each nation ranging from openness of the economy to inflation variability as empirical measures. They found that high levels of economic freedom and increases in economic freedom positively influence growth, and that achieving and maintaining high levels of freedom over time tends to produce high national income levels. Growth, moreover, has dramatically improved the absolute living standards of the poor as measured by human development indicators and income levels. Life expectancy, for example, will increase by about 6 percent when a nation's per capita income rises from \$500 to \$1000; moreover, a 10 percent increase in economic freedom tends to increase per capita GNP by 7.4 to 13.6 percent (Hanke and Walters 1997: 118, 139). Given that countries like Peru and Argentina have improved their levels of economic freedom by more than 100 percent between 1985 and 1995 (Gwartney and Lawson 1997: 32), the implications for the poor are impressive. That is particularly the case since a given

increase in wealth positively affects poorer countries more than it does richer countries, and much of the pestilence that afflicts the poor is relatively inexpensive and straightforward to deal with (Taylor 1994). Where aid has failed, growth has succeeded and can continue to do so.

With the collapse of central planning and the empirical record speaking so clearly, it has become evident that “the great differences in the wealth of nations are mainly due to differences in the quality of [countries’] institutions and economic policies” (Olson 1996). A general consensus has arisen that those policies and institutions necessary for economic growth should be market-oriented. Indeed, in the 1980s, aid agencies were already conceding the need for market-oriented policy change in recipient countries if lending was to do any good (World Bank 1981, 1984, 1987; U.S. AID 1989). There was a recognition that aid would not do good in countries that had bad economic policies. Today there is increasing agreement with World Bank Vice President Ernest Stern’s (1991: 2) observation that “a soundly designed project in a poor economic environment will not yield expected results” (see CSIS 1998, Williams 1996).

That observation, however, is not new, though it seems to have been forgotten soon after aid programs became institutionalized. In its 1948–49 annual report, for example, the World Bank itself recognized the futility of lending to countries that maintained inappropriate policies:

Certainly no amount of external aid, technical or financial, can replace the essential will and determination on the part of the government or the country concerned to adopt the often difficult and politically unpopular economic and financial measures necessary to create a favorable environment for development [as quoted in Mason and Asher 1973: 461].

To test whether aid agencies have acted on their own observations, I looked at the 20 countries in the Gwartney-Lawson (1997) sample whose overall economic freedom declined or remained the same (excluding Hong Kong, which has maintained the same high level) from 1985 to 1990. Of those 20 nations, aid as a percentage of GDP *increased* during that period in 19 countries and in 11 of those countries per capita GDP decreased. Moreover, the greater the reduction in freedom among those countries, the greater were the aid flows they received. Aid agencies were not in fact reducing their level of funding to countries that maintained anti-growth policies; *rather they were increasing aid flows despite widespread acknowledgment that such action would not promote development and would likely inhibit it.*

The period from 1990 to 1995 showed that aid agencies continued to ignore their own advice regarding lending to countries with inappropriate policy environments. Of the 24 countries whose overall economic freedom declined or remained the same during those years (excluding Hong Kong and Singapore), 11 countries saw their aid flows as a percentage of GNP increase or decline negligibly (a less than 10 percent fall). Of those 11 countries, seven saw their economies contract during that period.

The empirical evidence on aid and the causes of economic growth have led to calls for aid to focus on promoting economic reforms and on supporting countries that introduce such reforms. Aid, in other words, should be used "as a carrot to lure countries down the path of economic freedom" (*Investor's Business Daily* 1997) and then to promote growth under those conditions. Michael O'Hanlon and Carol Graham (1997: 62, 43) thus assert, "Today's least developed countries can benefit in most cases from more aid, provided they are reforming their economies and are committed to use the resources professionally and seriously. . . . When sound economic fundamentals are in place . . . there will be little reason for donors not to work with the recipient government." Likewise, Craig Burnside and David Dollar (1997: 32) conclude, "Aid would be more effective if greater effort were made to direct it to good policy performers."

Policy Change and the Ritual Dance

Naturally, many aid proponents already claim that foreign assistance, particularly multilateral development assistance from the World Bank and the International Monetary Fund, has been largely responsible for the worldwide shift away from statism. Yet the adoption of market-oriented policies at first by a handful of developing countries and then increasingly by dozens more has had little to do with five decades of official lending. Anne Krueger (1993) and Deepak Lal (1987) suggest that the cause for reform is typically the onset of economic crisis. The failure of import-substitution policies to promote industrialization in Taiwan and Korea, for example, combined with those countries' inability to rely on a wealth of domestic natural resources, and the cut-off of massive U.S. foreign aid had the effect of concentrating the minds of the ruling elite (Krueger 1993, Lal and Myint 1996, Krauss 1983). The economic liberalization of recent years, likewise, has been "due to the 'crisis' in governability that past dirigisme had engendered" (Lal 1996: 12).

The proposal that loans from aid agencies be conditioned on policy reform is, of course, not new. The IMF has always had a component

of conditionality attached to its lending, and the World Bank has done the same since 1980 in the form of structural adjustment loans (SALs). Because conditionality has been a feature mostly of multilateral lending institutions and because multilateral aid as a share of total aid flows is increasing (IMF 1998), it is useful to examine how successful that instrument has been.

The record of policy-based lending has been disappointing. Rodrik (1996) has concluded that it is unclear whether conditionality has been effective in practice. Others have been more critical, stressing the aid agencies' institutional pressures to lend and referring to a "ritual dance" between donor and recipient (Callaghy 1986; Mosley, Harrigan, and Toye 1995; Ranis 1996). The World Bank's SALs, for example, are disbursed in various tranches, in an effort to improve the enforceability of the attached conditions. Mosley, Jane Harrigan, and John Toye (1995: 173) note, however, that "the recipient knows that if it makes amicable noises, plus comparisons with other countries if necessary, it can expect the release of the second tranche within a year as surely as day follows night." SALs have done little to change the policies of recipient nations and in practice have often encouraged governments to maintain poor economic policies (CSIS 1998). Burnside and Dollar (1997: 4) found that some countries, like Ghana, exhibit a positive correlation between aid and policy change, but that "For each Ghana . . . there is a Zambia, in which policy deteriorated continuously from 1970 until 1993, while aid receipts rose continuously. The general result is no systematic effect of aid on policy." Mosley, Harrigan, and Toye (1995: 172) explain why that might be so:

In cases where there has been substantial delinquency on loan conditions, a typical sequence has been as follows: a supervision mission . . . flies out to the recipient country to inspect progress. . . . The recipient government is informed that the second tranche is being withheld. . . . The recipient government makes a conciliatory gesture. . . . What is being bargained about at this stage, therefore, is not whether the second tranche will be released, but when.

Dollar and Jakob Svensson (1998: 4) observe that "almost all adjustment loans disburse fully, even if policy conditions are not met." Gustav Ranis (1996: 6) concurs:

While the program loan instrument may be loaded with conditionality, ultimately the need to lend will overcome the need to ensure that those conditions are indeed met.

At the same time, while the additional resources are supposed to ease the pain of the adjustment, they serve to take the pressure off and permit the recipient to avoid adjustment. What usually occurs, at the risk of some exaggeration, therefore, is a rather time-consuming and expensive ritual dance. Few tranche releases have

ever been cancelled—at most they are delayed. Few countries, certainly not large ones, have ever had prolonged break-downs in their relations with the World Bank.

Even if more of the developing world is moving toward economic freedom for reasons unrelated to the lending agencies' conditionality, the lending agencies may be making matters worse. The aid institutions that take the policy reform mission seriously are, after all, in the awkward position of trying to discourage bad policy and encourage policy change through loan cut-offs and, at the same time, trying to encourage policy change through the release of more aid if a country promises such change. Yet releasing that aid would once again jeopardize reforms. Not releasing that aid, on the other hand, would mean that policy change would occur without aid and thus run the risk that the agencies would be viewed as irrelevant. From an institutional perspective, lending agencies simply cannot afford to let developing countries reform on their own. Both the aid institutions and the recipient governments know this, thus further reducing the credibility of so-called conditionality.

Despite their stated goal to promote market reforms, lending of this sort tends to delay rather than accelerate liberalization. This may even be the case in countries that are already predisposed to reform, since additional funding, by relieving the pressure to reform, can make it harder for liberal-minded regimes to resist the pressures of entrenched interests. Moreover, as Miles Kahler notes, "Policy action taken prior to securing external support offers a good predictor of the likelihood that programs will be implemented, but this observation only buttresses the point that governments committed to policy reform will probably undertake them in any case and that those opposed will resist" (as quoted in Haggard and Kaufmann 1992: 17). Evidence of the effects of aid for liberalization was most recently provided when India faced western sanctions in 1998 in response to the country's nuclear tests. As the *International Herald Tribune* (1998) reported, "India approved at least 50 foreign-investment projects to compensate for the loss of aid from Japan and the United States," and that India would take additional measures to attract capital.

The dynamic between lender and borrower has had further damaging consequences. Rodrik (1996) has suggested that aid agencies, to increase their credibility, should invest their resources in countries with which they have negotiated conditionality as a sort of signal that those nations are or will become good places in which to invest. Because conditionality implies a sort of official seal of approval of a country's policy environment, the aid institution's role as a rating agency for countries becomes paramount. But there are several rea-

sons to believe that aid agencies cannot perform this function properly. The most obvious reason is that the aid agency faces a conflict of interest if it were rating countries in which it had its own money at stake. Moreover, if aid agencies are to provide proper signaling to investors, they must be less secretive about what they know and do not know of a country's economic situation and likely direction. If aid agencies are to follow the IMF's lead in trying to prevent national financial crises from erupting, however, they are likely to remain secretive. Indeed, if the IMF and other official lenders did perceive a potential crisis in a country, they would precipitate a crisis by announcing their concerns. Not sounding the alarms, however, would undermine their role as credible rating agencies. This appears to have occurred recently with the IMF in the Asian crisis (Vásquez 1998). Only by not lending could the IMF increase its integrity. At that point, however, it would merely be duplicating a function already available in the private sector.

The signaling function of conditional lending can be harmful in other ways. Paul Collier (1997: 60) has observed that the ritual dance between donors and borrowers has made it especially difficult for genuine reformers to signal their intentions because so much conditionality has not been honored and in Africa has come to represent the wishes of the donor as against the wishes of the recipient. "Conditionality has thus had the inadvertent outcome of enabling African governments only to signal their policy incompetence. Failures are clearly attributable to governments; successes are not." Collier furthermore notes that aid for reform is likely to be highly volatile as African nations increasingly contest elections and thus enter into "political business cycles." As they do so, policy-based lending is likely to be highly cyclical and so contribute to instability, thereby becoming a source of economic crisis. That observation is consistent with Rodrik's (1996: 184–86) that there is no evidence that multilateral aid stimulates additional capital flows and that it may even deter them; it appears, moreover, that such aid has followed, rather than led private capital flows, suggesting "the possibility that multilateral institutions end up bailing out private investors."

Given the problems with conditionality, some aid advocates (Burnside and Dollar 1997, Collier 1997) have suggested that aid be disbursed only to countries with good policy environments where it can achieve desirable results. This approach, known as selectivity—providing foreign assistance only to countries that can show a level of achievement—is also not new. Aid agencies have long struggled to differentiate between the two approaches (conditionality and selectivity) and to determine which works best. In 1966, for instance,

former U.S. AID official Charles Lindblom explained, "The distinction between trying to buy, with aid, the policies we like and coming more generously to the assistance of policies that promise growth is a fine one; but it is a genuine one" (as quoted in Mason and Asher 1973: 442). And, in their review of the World Bank's lending history, Edward Mason and Robert Asher (1973: 442) noted, "The Bank has governed its lending operations by judgments both of the significance of development indicators and of the effect of particular policies; and with respect to policies it has on occasion rewarded and on other occasions attempted to induce their adoption."

Alas, reliance on the selectivity approach is also questionable. Aid institutions would be in charge of determining what constitutes sufficient achievement for aid disbursal; proponents of the selectivity mission have been especially vague about the necessary criteria. At what level of economic freedom or after how much policy reform would a country qualify for selective aid? Obviously, this is a judgment call. But given the aid agencies' demonstrated institutional incentives to lend, which have so plagued conditional aid, there is little reason to believe that such pressure will not also undermine selective lending. Countries that reformed after a certain point might slow or stop their reform processes in the knowledge that they would now qualify for continuing aid. Indeed, if the aid did flow and reforms stopped, what would be the response of the aid agencies? Aid agencies could cut off recipients to induce further reforms, but then they would merely be resuming the pattern of conditional lending again. It is not at all clear why selectivity would be more successful at promoting reforms than would be an international environment of market forces with no such aid. Although Burnside and Dollar, for instance, do not list the countries they selected as good policy environments, they did mention Ghana as one example; it is worth noting that policy slippage there has increased since the release of their study.

A world without development aid (whether conditional, selective, or otherwise) is likely to be a world in which private selectivity and conditionality would have more credibility and thus lead to real conditionality and real reform.¹ It would reduce, if not end, the dizzying spectacle of "ritual dances" based on too much champagne.

References

- Alesina, A., and Dollar, D. (1998) "Who Gives Foreign Aid To Whom and Why?" NBER Working Paper 6612. Cambridge, Mass.: National Bureau of Economic Research.

¹Alberto Alesina and Dollar (1998) find that "While foreign aid flows respond more to political variables, foreign direct investments are more sensitive to economic incentives, particularly 'good policies' and the protection of property rights in the receiving countries."

- Bauer, P.T. (1972) *Dissent on Development*. Cambridge, Mass.: Harvard University Press.
- Bauer, P.T. (1981) *Equality, the Third World, and Economic Delusion*. Cambridge, Mass.: Harvard University Press.
- Boone, P. (1994a) "The Impact of Foreign Aid on Savings and Growth." Working Paper. London School of Economics and Center for Economic Performance.
- Boone, P. (1994b) "Politics and the Effectiveness of Foreign Aid." Working Paper. London School of Economics and Center for Economic Growth.
- Burnham, J.B. (1996) "Additionality in Multilateral Lending Operations." Background paper for the Task Force on the United States and the Multilateral Development Banks. Center for Strategic and International Studies, Washington, D.C.
- Burnside, C., and Dollar, D. (1997) "Aid, Policies and Growth." Policy Research Working Paper No. 1777. World Bank, Washington, D.C.
- Callaghy, T. (1986) "The Political Economy of African Debt: The Case of Zaire." In J. Ravenhill (ed.) *Africa in Economic Crisis*, 307–406. New York: Columbia University Press.
- Center for Strategic and International Studies [CSIS] (1998) *The United States and the Multilateral Development Banks*. Washington, D.C.: Center for Strategic and International Studies.
- Collier, P. (1997) "The Failure of Conditionality." In C. Gwin and J.M. Nelson (eds.) *Perspectives on Aid and Development*, 51–77. Washington, D.C.: Overseas Development Council.
- Congressional Budget Office (1997) *The Role of Foreign Aid in Development*. Washington, D.C.: Government Printing Office.
- Dollar, D., and Svensson, J. (1998) "What Explains the Success or Failure of Structural Adjustment Programs?" Working Paper. World Bank, Washington, D.C.
- Feyzioglu, T.; Swaroop, V.; and Zhu, M. (1996) "Foreign Aid's Impact on Public Spending." Policy Research Department. World Bank, Washington, D.C.
- Gwartney, J., and Lawson, R. (1997) *Economic Freedom of the World 1997*. Vancouver, B.C.: Fraser Institute.
- Haggard, S., and Kaufmann, R. (1992) "Institutions and Economic Adjustment." In S. Haggard and R. Kaufmann (eds.) *The Politics of Economic Adjustment*, 3–37. Princeton, N.J.: Princeton University Press.
- Hanke, S., and Walters, S.J.K. (1997) "Economic Freedom, Prosperity, and Equality: A Survey." *Cato Journal* 17(2): 117–46.
- International Herald Tribune* (1998) "Sanctions Goad India into Opening Economy." 20 May.
- International Monetary Fund [IMF] (1998) "Despite Decline in 1996, Official Financing is Increasingly Vital for Low-Income Countries." *IMF Survey* 27(6): 94–96.
- Investor's Business Daily* (1997) "Finding a Mission." 31 March.
- Johnson, B.T.; Holmes, K.R.; and Kirkpatrick, M. (1998) *1998 Index of Economic Freedom*. Washington, D.C.: Heritage Foundation.
- Krauss, M.B. (1983) *Development Without Aid*. New York: McGraw-Hill.

- Krueger, A. (1993) *The Political Economy of Policy Reform in Developing Countries*. Cambridge, Mass.: MIT Press.
- Lal, D. (1987) "The Political Economy of Economic Liberalization." *World Bank Economic Review* 1(2).
- Lal, D. (1996) "Foreign Aid: An Idea Whose Time Has Gone." *Economic Affairs* 16(4): 9–14.
- Lal, D., and Myint, H. (1996) *The Political Economy of Poverty, Equity and Growth*. New York: Oxford University Press.
- Messick, R.E. (1996) *World Survey of Economic Freedom 1995–1996*. New Brunswick, N.J.: Transaction Books.
- Mosley, P. (1987) *Overseas Aid: Its Defence and Reform*. Brighton, England: Wheatsheaf Books.
- Mosley, P.; Harrigan, J.; and Teye, J. (1995) *Aid and Power: The World Bank and Policy-Based Lending*. New York: Routledge.
- O'Hanlon, M., and Graham, C. (1997) *A Half Penny on the Federal Dollar: The Future of Development Aid*. Washington, D.C.: Brookings Institution.
- Olson, M. (1996) "Big Bills Left on the Sidewalk: Why Some Nations Are Rich, and Others Poor." *Journal of Economic Perspectives* 10(2): 3–24.
- Ranis, G. (1996) "On Fast-Disbursing Policy-Based Loans." Background Paper prepared for the Task Force on the United States and Multilateral Development Banks. Center for Strategic and International Studies, Washington, D.C.
- Rodrik, D. (1996) "Why Is There Multilateral Lending?" In *Annual Bank Conference on Development Economics 1995*, 167–93. Washington, D.C.: World Bank.
- Scully, G.W. (1992) *Constitutional Environments and Economic Growth*. Princeton, N.J.: Princeton University Press.
- Stern, E. (1991) "Evolution and Lessons of Adjustment Lending." In V. Thomas et al. (eds.) *Restructuring Economies in Distress: Policy Reform and the World Bank*, 1–7. New York: Oxford University Press.
- Taylor, J. (1994) "The Challenge of Sustainable Development." *Regulation* 17(1): 35–50.
- United Nations Development Programme [UNDP] (1996) *Human Development Report 1996*. New York: Oxford University Press.
- U.S. Agency for International Development [U.S. AID] (1989) *Development and the National Interest: U.S. Economic Assistance into the 21st Century*. Washington, D.C.: U.S. AID.
- Vásquez, I. (1998) "Unruly Watchdog." *Washington Times*, 3 March: A20.
- Williams, C. (1996) "Foreign Aid in Economic Development." Statement before the Subcommittee on African Affairs, U.S. Senate Committee on Foreign Relations.
- World Bank (1981) *Accelerated Development in Sub-Saharan Africa: An Agenda for Action*. Washington, D.C.: World Bank
- World Bank (1984) *World Bank Development Report*. New York: Oxford University Press.
- World Bank (1987) *World Bank Development Report*. New York: Oxford University Press.
- World Bank (1994) *World Bank Development Report*. New York: Oxford University Press.

ECONOMIC FREEDOM AND HUMAN WELFARE: SOME EMPIRICAL FINDINGS

Herbert G. Grubel

When I attended graduate school in economics at Yale, one of my professors, Henry Wallich, in 1960 published a book entitled *The Cost of Freedom*. This book reflected the conventional wisdom of the time that appeared also in the leading textbooks in economics: to achieve lower unemployment, higher economic growth and a more equitable distribution of income, governments have to increase regulation and taxation. The achievement of these policy goals was considered to be worth the loss of economic and personal freedom brought on by the accompanying increased size of government.

Economic theory provided the justification for a wide range of policies. Keynesian macroeconomic models wrapped into the neoclassical synthesis offered lower unemployment through countercyclical budget imbalances. A little inflation was promised to lower unemployment further, taking advantage of the Phillips curve trade-off. Economic growth was to be stimulated by the proper mix of monetary and fiscal policies, the public ownership of industry, and planned investment in "strategic" industries. Regulation promised the elimination of market failures. Social insurance programs would provide income security and equalize the distribution of income.

Seemingly strong empirical evidence promised success for these policies. In the United States increased government activism during and after the Second World War was accompanied by strong economic performance, especially during the 1960s. Krushchev's famous announcement "We will bury you economically" was taken seriously as the Soviet Union appeared to grow rapidly and had no unemployment. Sweden's successful efforts to equalize income were accompanied by low unemployment, industrial peace and rapid economic growth.

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The conventional wisdom on these issues began to fade with the inflation and stagflation in the United States during the 1970s and early 1980s. The collapse of the Soviet Union has revealed that the officially pronounced superior economic performance of central planning was a sham. The miracle of Sweden's economic and social performance has lost its luster with the release of recent statistics. In 1960, Sweden's per capita income was 6 percent higher than that of Canada. In 1995, Sweden's per capita income was 14 percent lower than Canada's. Unemployment in Sweden has become a persistent problem (see Lindbeck 1997). Japan's stagnating economy of the 1990s is seen by many as evidence of the pitfalls of national industrial strategies.

During the heyday of Keynesianism, Milton Friedman's (1962) book *Capitalism and Freedom* rejected much of the conventional wisdom of the time. Even though his book was a bestseller its message was largely ignored by the establishment in economics. However, at a meeting of the Mont Pelerin Society in Cambridge, England, in 1984, the idea was first raised to challenge the conventional wisdom on the relationship between economic freedom and economic performance. In 1986, a group of economists met in California to flesh out the idea. Michael Walker of Canada's Fraser Institute organized the conference, attended by Milton and Rose Friedman, Armen Alchian, Arnold Harberger, Assar Lindbeck, and many other distinguished economists. Other meetings followed and resulted in a number of studies of the nature of economic freedom and the relationship between it and economic development.

In 1996, James Gwartney, Robert Lawson, and Walter Block, with much input by Alvin Rabushka, published the first volume *Economic Freedom of the World*. In 1997, Gwartney and Lawson published an update of that study. Those volumes contain an index of economic freedom that was compiled with the help of economists from many countries.

More specifically, the 1997 edition of *Economic Freedom of the World* presents for 115 countries data on the extent to which governments restrict economic freedom through inflationary and unstable monetary policy, regulation, taxation, and restraints on international exchange. Seventeen such measures are combined into an index that reflects the strength of economic freedom in each country. In 1995 Hong Kong had a Freedom Index of 9.3 out of 10 and placed first in the ranking of the 115 countries. Algeria ranked last with an index of 1.9 out of 10.

The following analysis uses this data base first to present as a reminder the most powerful and fundamental conclusions found in the volume containing the basic statistics. I then present evidence on

the effect that economic freedom has on other indicators of human well-being like unemployment, life expectancy, and income distribution.

Before I present my empirical evidence, I have two comments on methodology. First, quoting Friedman in the Preface to the 1996 publication of the *Economic Freedom of the World* (p. viii): "There is nothing in the way the indexes are calculated that would prevent them from having no correlation whatsoever with such completely independent numbers as per capita GDP and the rate of growth of GDP." The same holds true for the correlation with social indicators.

Second, I present my findings in simple bar graphs. I follow the precedent of the first publication of the Economic Freedom Index and group countries into quintiles, according to their economic freedom. For each of these quintiles I then show the values of social performance indicators and possible systematic relationships. I also present regression estimates that confirm the results obtained through the use of the bar graphs.

The focus on the relationship between economic freedom and the economic and social conditions of countries fails to examine the influence that many other variables have on social outcomes. However, as is well recognized by econometricians, the use of multiple regressions for such purposes brings its own problems. The estimates presented by analysts are often considered to be the result of data-mining. They are seen to be less the product of classical statistical inference and more a sophisticated way of reflecting the researcher's *a priori* expectations and values. This can hardly be said of the analytical approach used here, which has the additional advantage of producing visually powerful results.

Economic Freedom, Income, and Economic Growth

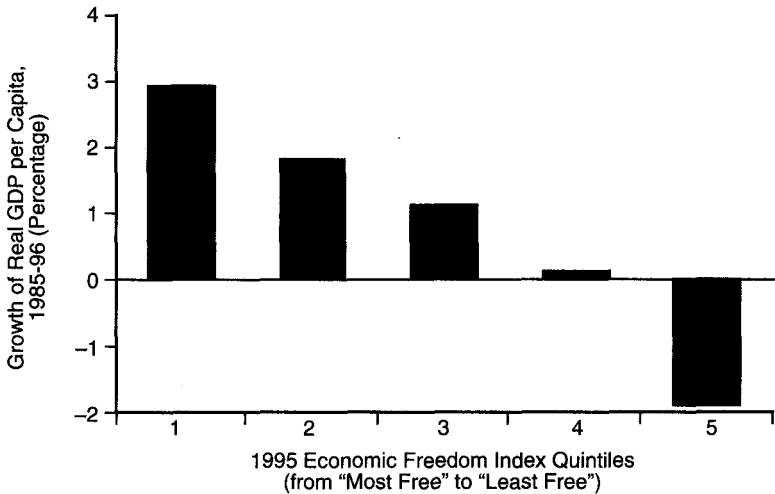
The first two figures are based on the entire population of 115 countries ranked in the Economic Freedom index. Figure 1 shows for each quintile of countries, ranked from "most free" to "least free," their average per capita income in U.S. dollars based on purchasing power parity. For example, for the quintile of countries with the most freedom, per capita GDP was \$14,829. Figure 2 shows the growth of real per capita income over the 1985–96 period by quintile ratings of economic freedom (from highest to lowest). These graphs show clearly and unambiguously that income levels and growth rates are higher the greater is a country's economic freedom. The postwar conventional wisdom was not only wrong, the opposite of what it

FIGURE 1
ECONOMIC FREEDOM AND PER CAPITA GDP



SOURCE: Gwartney and Larson (1997: 34).

FIGURE 2
ECONOMIC FREEDOM AND ECONOMIC GROWTH



SOURCE: Gwartney and Larson (1997: 34).

asserted is true. Economic freedom is not associated with economic costs, it brings economic benefits.¹

Economic Freedom and Unemployment Rates

Many experts consider income, as measured by the national income accounts, to be an inadequate indicator of economic well-being. Unemployment and the distribution of power between employers and employees, they argue, are also important indicators because they help determine the distribution of income. In response to these concerns, governments have enacted policies to reduce unemployment, grant benefits to the unemployed, strengthen the power of unions, set minimum wages, and regulate collective bargaining procedures. As a result, the freedoms of employers and employees have been severely restricted. The question is whether and to what extent such reductions in labor-market freedom produce the expected benefits in terms of unemployment.²

Figure 3 shows unemployment rates for 20 OECD countries during the 1993–96 period grouped into quintiles, according to the level of economic freedom (with quintile 1 representing those countries with the most economic freedom and quintile 5 representing those with

¹There is a rapidly growing literature that adds the Economic Freedom Index as an independent variable to the traditional variables explaining economic growth in studies involving large numbers of countries. Easton and Walker (1997: 332) conclude “Economic freedom is important as well as model improving.” Gwartney, Lawson, and Holcombe (1998: 26) conclude, “There is a strong and robust relationship between increases in economic freedom. . . and economic growth. This relationship is present even after measures of physical and human capital are taken into account.” Presumably, these findings derived from multiple regressions explain the strong results shown in Figures 1 and 2. Both papers contain bibliographies of related studies.

Farr, Lord, and Wolfenberger (1998: 8) have considered the possibility that the causal relationship runs from economic freedom to economic growth, as is suggested by Friedman’s model, but it also could have the reverse causal connection. It is possible, in principle, that economic freedom is a luxury that countries will consume increasingly as income rises under regimes that generate indices of low economic freedom. The authors used Granger causality tests and found that “past values of economic freedom help predict future values of economic growth.” But they also found that “the opposite occurs.” Thus, they concluded that, “Taken together, this evidence suggests bilateral causality, or feedback, between economic freedom and economic growth.” I am not convinced by these statistical findings. Casual historical evidence suggests to me clearly that in recent years developing countries like those in Southeast Asia experienced significantly higher economic growth after increasing economic freedom through free trade and domestic deregulation. At the same time, many developing countries that failed to deregulate had stagnating economies.

²Economists are engaged in a serious debate about the extent to which the high unemployment rates prevailing in European countries are due to these legislated restraints on labor-market freedom. For recent surveys of this controversy, see Nickell (1997) and Siebert (1997).

FIGURE 3
ECONOMIC FREEDOM AND UNEMPLOYMENT
(20 OECD Countries, 1993–96)



SOURCES: Gwartney and Larson (1997: 34), OECD (1997).

the least). Except for unemployment rates of the countries in the third quintile, less economic freedom is associated with higher unemployment rates. There is a striking parallel with the result that government policies that reduce freedom also reduce income levels and economic growth. In both cases, policies create outcomes that are the opposite of those intended and expected under the conventional wisdom.³

My results support those who argue for the deregulation of labor markets to lower unemployment. However, my results do not address the issue emphasized by those opposed to deregulation on the grounds that it would increase income inequalities. This subject will be discussed below in an analysis of the correlation between economic freedom and income distribution.

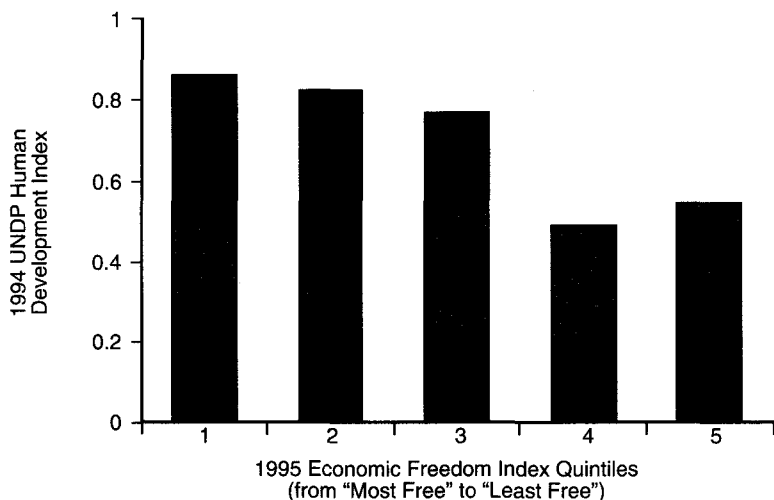
³The results of this analysis would be strengthened by the use of an index for labor-market freedom rather than economic freedom more generally. Gwartney and Lawson are working on such an index and expect to have it included in the next edition of the *Economic Freedom of the World* for the OECD countries for which a basic data base exists. I believe that there is a high degree of correlation between labor-market freedom and overall economic freedom in these countries because they are both driven by the same ideology. I therefore expect that the results of Figure 3 would be much the same if countries were grouped into quintiles according to labor-market freedom rather than economic freedom.

United Nations Measures of Human Development

The idea that national income statistics measure human welfare only imperfectly has prompted the United Nations Development Program (UNDP) to publish annually indicators of social well-being for 175 countries. The so-called Human Development Index gives equal weight to life expectancy at birth, adult literacy rates, school enrollment, and real per capita incomes. This index is used by some to argue that countries with high levels of government intervention can produce much better social conditions than countries with less intervention and the same level of income.⁴ Such claims invite empirical scrutiny in the light of the Economic Freedom performance of these countries.

Figure 4 shows the average value of the Human Development Index for countries grouped into quintiles. The calculations are based on 113 countries that appear in both the UN and Fraser Institute tables. Most of the 62 countries omitted from the UN list of 175 are

FIGURE 4
ECONOMIC FREEDOM AND HUMAN DEVELOPMENT



SOURCES: Gwartney and Larson (1997: 34), UNDP (1997: Table 1).

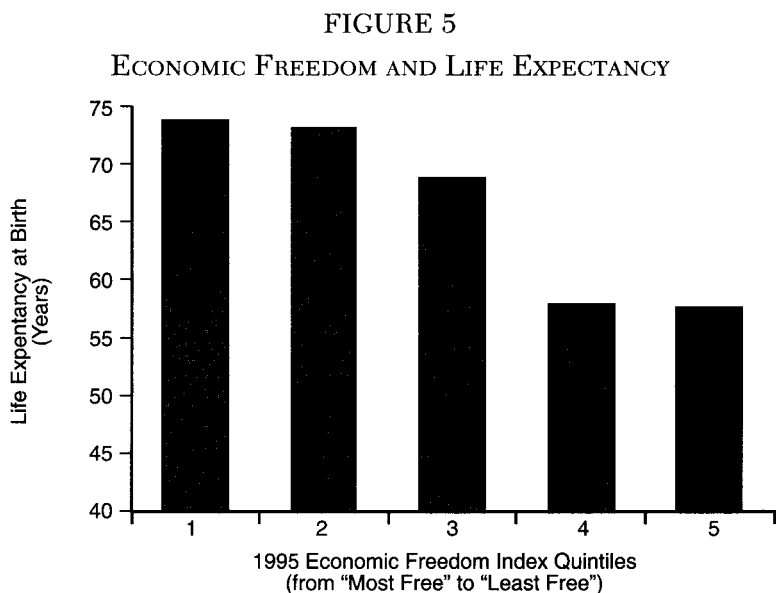
⁴Canada in recent years has ranked first on the UNDP list. This ranking is used by Canadian politicians to defend the country's costly social programs and to justify the growing gap in real per capita income between Canada and the United States. During the 1970s, Cuba's policies to increase literacy rates and access to medical services were used as an example of the success of policies that put social well-being ahead of economic growth and personal and economic freedom.

small, underdeveloped countries, and many have been formed only recently as a result of the break-up of the Soviet Union and other nations.

Figure 4 indicates, in general, that greater economic freedom is associated with higher levels of human development. It could be argued that the results of Figure 4 are not surprising since the UN Human Development Index has per capita income as one of its main components. Therefore, I considered separately the relationship between economic freedom and the components of the UN Human Development Index.

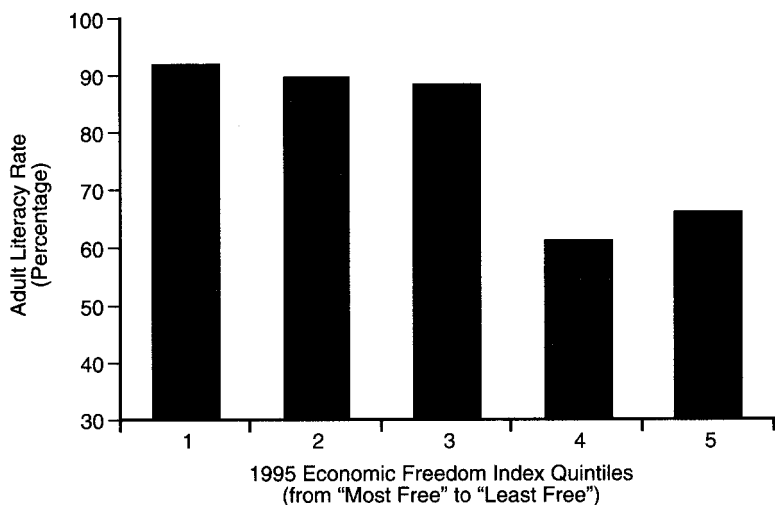
One component, income per capita, has already been examined in Figure 1. Figures 5 and 6 show the relationship between economic freedom and the other two components of the UN Index—life expectancy at birth and adult literacy rates, respectively. As can be seen, for both series, the last two quintiles fall outside of the basic pattern, probably for the reasons given in the preceding paragraph. However, it is clear that the pattern found for the basic index cannot be attributed simply to differences in the per capita income of the countries.

I have searched the regular statistical tables in the appendix to the *Human Development Report* for other indicators of social well-being. Unfortunately, there are few that cover a wide range of countries. The exception is the rate of mortality of children under five. My



SOURCES: Gwartney and Larson (1997: 34), UNDP (1997: Table 1).

FIGURE 6
ECONOMIC FREEDOM AND ADULT LITERACY



SOURCES: Gwartney and Larson (1997: 34), UNDP (1997: Table 1).

analysis, not reproduced here, shows a very strong and consistent relationship: the greater economic freedom, the lower is infant mortality.

However, the 1997 edition of the *Human Development Report* contains a special compilation of the "Human Poverty Index" for 78 low- and middle-income countries.⁵ The index consists of a linear combination of countries' percentages of people expected to die before the age of 40 and who are illiterate. It also contains three economic measures: the percentages of those with access to clean water and health care and the percentage of malnourished children under age five.

Figure 7 shows the relationship between economic freedom and the Human Poverty Index for 55 countries. The results are quite strong, given the heterogenous nature of the sample of the world's poor- and middle-income countries. The proportion of the population afflicted by poverty, as measured by the index, is generally greater the less free is the economy. The data suggest unambiguously that the 40 percent of countries with the least economic freedom have

⁵It is interesting to note that the list includes Singapore and Chile. The report does not explain the exclusion of high-income countries from the list.

FIGURE 7
ECONOMIC FREEDOM AND POVERTY



SOURCES: Gwartney and Larson (1997: 34), UNDP (1997: 21, Table 1.1).

the highest levels of poverty, and the 40 percent with the highest economic freedom have the lowest poverty levels, by a large margin.⁶

Table 1 presents regression estimates for the sets of cross-section data used in Figures 3–7. Each of the slope coefficients has the expected sign, and except for the first regression (i.e., with respect to Figure 3), each is statistically significant to a high degree.

Economic Freedom and Income Distribution

Almost all countries have policies aimed at creating a more equal distribution of income than is produced by a free market. Such policies involve progressive income taxation and transfer payments to low income earners, mostly through social insurance programs providing welfare, unemployment, health, and pension benefits. The collection of the funds needed for these transfers results in a reduction in economic freedom. In addition, income redistribution policies induce changes in behavior. High marginal tax rates lead to tax evasion and transfer payments, and social insurance programs induce moral hazard. To limit the effects of these induced changes in behavior requires laws that further reduce economic freedom.

⁶Norton (1998) has used the same UN data base to examine the relationship between human poverty and property rights. He concludes, “The institution of private property is closely linked with the well-being of the poorest members of the world community.”

TABLE 1
REGRESSION RESULTS FOR DATA SHOWN IN FIGURES 3-7
(Independent Variable: Economic Freedom Index)

Reference	Dependent Variable	Intercept	Slope Coefficient	t-Value	R-Squared
Figure 3	Unemployment Rate	24.1	-0.2	-1.5	.12
Figure 4	Human Development Index	207.1	9.3	7.7	.35
Figure 5	Life Expectancy at Birth	420.7	4.6	7.4	.33
Figure 6	Adult Literacy Rate	379.9	7.8	6.1	.25
Figure 7	Human Poverty Index	595.7	-6.1	-5.4	.35

Based on these considerations, I hypothesize a negative correlation between equality in the distribution of income *after* transfers and taxes, on the one hand, and economic freedom across countries, on the other. In my model the measured degree of income equality is the result of government policies. It is considered to be the determinant of economic freedom and economic outcomes like income and growth. In my regressions, therefore, the equality of income is the independent variable.

Other studies have focused on the determinants of income equality.⁷ They therefore use income levels, growth, and economic freedom as the independent variables. I think that this analytical approach is justifiable only if the data on income inequality are *before* both transfers and taxes. The data available to me were for most countries an average of income distribution after transfers (55 percent of the observations) and after taxes (45 percent).⁸

The following analysis uses information on 56 countries for which I was able to obtain matching data for the measure of inequality, the Economic Freedom Index, per capita income levels, and economic

⁷Berggren (1998) runs regressions in which income equality is the dependent variable and economic freedom, income levels, and growth are the independent variables. His theory is simple and appealing. He suggests that an increase in economic freedom, *ceteris paribus*, can "induce higher equality, if the poor are able to take advantage of the freer economic setting, perhaps brought about through trade liberalization or the introduction of more secure property rights, to a larger degree than the rich" (p.11). Similarly, higher levels of income and growth can result in greater income equality as they lead to more education and health to those with lower incomes. The result of these influences on income distribution can be established only empirically.

Berggren uses the same data on income equality by Deininger and Squire (1996) as I use. He finds strong support for the hypothesis that income equality increases with economic freedom, income, and growth. More specifically, using income equality as the dependent variable in a multiple regression, he finds that the coefficient is positive for the level of economic freedom in 1985, negative for the change in economic freedom between 1975 and 1985, and negative for per capita income. He concludes, "Sustained and gradual increases in economic freedom influence equality measures positively" and "the absolute level of economic freedom appears to be negatively related to equality in some cases" (p.22). His most robust finding involves a positive empirical relationship between *increases* in freedom and *increases* in equality, holding constant income levels and growth.

⁸I used a data set recently published by Deininger and Squire (1996) in the *World Bank Economic Review*. The authors examined 2,600 studies on income distribution covering nearly all countries of the world. They included in their sample only those studies that met strict standards of quality and comparability. Each observation for a country consists of the average of results taken from different studies and time periods. The average for each country mixes survey data (652 observations) based on both income after transfers (55 percent) and income after transfers and taxes (45 percent of all observations). The payment of transfers involves taxation and other restrictions on economic freedom so that for the former set of measures I would expect a negative correlation between equality and economic freedom.

growth for the 1980–93 period. The measure of income equality used here is the ratio of family income earned by the top quintile of households relative to the bottom quintile. An increase in this ratio means greater income inequality.⁹

An examination of the scatter diagram for all 56 countries suggests that countries with incomes above \$17,000 and with income below that level make up two distinct subsets of observations. Table 2 presents for the 17 countries with per capita incomes above \$17,000 simple regressions of income inequality on income levels in 1995, economic growth for 1980 to 1993, and economic freedom in 1995. As can be seen, for all three equations the correlations and the slope coefficients are statistically significant at the 5 percent level.¹⁰ The signs on the slope coefficients confirm the initial hypothesis. Greater income inequality is associated with higher economic freedom, higher income levels, and higher economic growth rates. In other words, policies that bring about greater income equality also result in lower economic freedom, income, and growth.

The quantitative effects of the influence of income distribution policies on economic freedom and economic performance are shown

TABLE 2
REGRESSION RESULTS FOR 17 COUNTRIES WITH ANNUAL
PER CAPITA INCOME OF OVER \$17,000
(Independent Variable: Income Inequality)*

Dependent Variable	Intercept	Slope Coefficient	t-Value	R-Squared
Income Levels	15.5	.92	2.3	.25
Income Growth	−2.4	3.8	2.0	.21
Freedom Index	4.8	3.1	2.4	.26

*Income inequality is measured as the ratio of family income earned by the top quintile of households relative to the bottom quintile.

SOURCES: Deininger and Squire (1996), Gwartney and Lawson (1997).

⁹The data base also includes information on Gini coefficients. I have chosen to use only the ratio of the top to bottom quintiles, mostly on the grounds that this measure is easier to explain and appears to be used most widely by those arguing in favor of policies for greater income equality. This measure is also used by Berggren (1998). The correlation coefficient (R-squared) between the ratio and the Gini coefficient is .79.

¹⁰Identical regressions were estimated for the 38 countries in the sample with less than \$17,000 income. Only the coefficients for the regression using the freedom index were statistically significant. The results imply that, for low-income countries, greater income equality is associated with lower economic freedom. The two other pairwise regressions were not statistically significant.

in Tables 3 and 4. Both tables show differences in the four variables for the averages of the top three and bottom three countries in the group of 17. In Table 3, the top and bottom three countries are those with the highest and lowest incomes per capita, respectively. In Table 4, the top and bottom three countries are those with the highest and lowest ratios of average incomes, respectively.

The results in Table 3 imply the following. Consider that a country with the highest income per capita imposes taxes at the rate of 1.3 percent of income on earners in the top quintile and transfers the resultant revenue to those in the bottom quintile. The income of the first group falls from 780 to 770 and that of the second rises from 100 to 110.¹¹ The ratio of the income of the top and bottom quintile will have fallen from 7.8 to 7.0. The costs of redistribution are a reduction in freedom of 16 percent, a decrease in per capita income of 49 percent, and a reduction in the rate of real per capita income growth of 12 percent.

The results in Table 4 imply that the top quintile earners have to pay a tax of 7.4 percent on an income of 900 to pay transfers of 67, which raise the income of the bottom quintile from 100 to 167. The new ratio of 5 results in a reduction of 15 percent in economic freedom, a decrease of 17 percent in per capita income, and a reduction of 52 percent in the growth of per capita income.

The empirical results reported in Tables 3 and 4 should be treated with much caution, but they lend themselves to the illustration of what in principle is one of the most important arguments against redistributive policies that slow economic growth. Consider Country A in which the income of the bottom quintile is 100 and grows at 1.6 percent annually. Country B, identical to Country A, raises the income of the bottom quintile to 110 and experiences a reduction in the growth rate to 1.4 percent. After 49 years, the absolute level of income of those in the bottom quintile will be 217 in both Countries A and B. Thereafter, the income of the bottom quintile will be higher and by a growing margin in Country A. In the second example, where the income redistribution policies resulted in a 67 percent increase in the income of the bottom quintile, the differences in the rates of economic growth equalize the income of that group in the two countries at 291 after 49 years.

¹¹For this calculation the key variable is the ratio of top to bottom quintile incomes. The index of 780 for the top and 100 for the bottom can readily be scaled up to reflect actual money incomes. For example, if the top and bottom quintile incomes were \$78,000 and \$10,000, respectively, the tax rate of 1.3 percent would lower the income of the top quintile by \$1,000, and the transfer to the bottom quintile would raise the income by the same amount.

TABLE 3
INCOME EQUALIZATION AND ITS EFFECTS ON FREEDOM AND INCOME
(Differences between the Averages for the Three Countries with
the Highest and Lowest Per Capita Incomes)

Performance Indicators	Top 3 Countries	Bottom 3 Countries	Difference in Value of Index	Percentage Gain or (Loss) (Top 3 = 100)
Income Distribution Ratio of Quintiles	7.8	7.0	0.8	11
Economic Freedom Index	8.0	6.9	1.1	(16)
Per Capita Income 1995	26.2	17.6	8.6	(49)
Per Capita Growth Annual Av. 1980-93	1.6	1.4	0.2	(12)

NOTE: The top three countries in per capita income are Hong Kong, the United States, and Canada. The bottom three are Finland, Ireland, and New Zealand.

SOURCES: Deininger and Squire (1996), Gwartney and Lawson (1997).

TABLE 4
INCOME EQUALIZATION AND ITS EFFECTS ON FREEDOM AND INCOME
(Differences between the Averages for the Three Countries with
the Highest and Lowest Ratios of Income Quintiles)

Performance Indicators	Top 3 Countries	Bottom 3 Countries	Difference in Value of Index	Percentage Gain or (Loss) (Top 3 = 100)
Income Distribution Ratio of Quintiles	8.9	4.2	4.7	53
Economic Freedom Index	7.9	6.7	1.2	(15)
Per Capita Income 1995	23.9	19.8	4.1	(17)
Per Capita Growth Annual Av. 1980-93	2.3	1.2	1.1	(52)

NOTE: The top three countries in per capita income are Hong Kong, the United States, and Ireland. The bottom three are Belgium, the Netherlands and the United Kingdom.

SOURCES: Deininger and Squire (1996), Gwartney and Lawson (1997).

This is not the place to evaluate the merit of income redistribution policies in detail. The shortcomings of the preceding analysis are obvious. It neglects the effects of taxes and subsidies on the middle three quintiles. There are questions about the changing members of the different quintiles since a large proportion turns over every year. There are problems with the comparison of utility between individuals and, in the case of the illustration, different generations. Nevertheless, the preceding analysis shows empirically that policies designed to achieve greater equality of income reduce the rate of economic growth, levels of income, and the levels of economic freedom. Advocates for income redistribution policies should consider these negative effects when evaluating the net benefits of such policies.

Conclusion

This paper uses the Economic Freedom Index to show that greater economic freedom does not have a cost in terms of income levels, income growth, unemployment rates, and human development, as has been the conventional wisdom during much of the postwar era. To the contrary, economic freedom is associated with superior performance on all of these criteria of human well-being.

However, there is a widespread belief that the equality of income distribution is an important aspect of a society's, and therefore its members', well-being. In Canada, for example, in the political arena much is made of the statement, "A society is judged on the basis of how well it cares for its poor, elderly, and sick." It is relatively well known that income redistribution policies result in blunted incentives to work, invest, and take risks. As a result of those distortions, economic growth and income levels are reduced. Efforts to redistribute income also require policies to limit changes in behavior of individuals wanting to avoid taxes and wanting to qualify for transfer payments. All of these policies amount to reductions in economic freedom. The calculations presented here support these hypotheses. Income redistribution policies reduce freedom and the levels and rates of growth of per capita incomes.

References

- Berggren, N. (1998) "Economic Freedom and Equality: Friends or Foes?" Paper presented at the 23rd Annual Conference of the Association of Private Enterprise Education, Dallas, Tex. (Forthcoming in *Public Choice*.)
- Deininger, K., and Squire, L. (1996) "A New Data Set Measuring Income Inequality." *World Bank Economic Review* 10(3): 565–91.
- Easton, S., and Walker, M. (1997) "Income, Growth, and Economic Freedom." *American Economic Review* 87(2): 328–33.

- Farr, K.W.; Lord, R.A.; and Wolfenbarger, J.L. (1998) "Economic Freedom, Political Freedom and Economic Growth: A Causality Analysis." Paper presented at the 23rd Annual Conference of the Association of Private Enterprise Education, Dallas, Tex.
- Friedman, M. (1962) *Capitalism and Freedom*. Chicago: University of Chicago Press.
- Gwartney, J.; Lawson, R.; and Block, W. (1996) *Economic Freedom of the World 1975-95*. Vancouver, B.C.: Fraser Institute.
- Gwartney, J. and Lawson, R. (1997) *Economic Freedom of the World 1997, Annual Report*. Vancouver, B.C.: Fraser Institute.
- Gwartney, J.; Lawson, R.; and Holcombe, R. (1998) "Economic Freedom and the Environment for Economic Growth." Working Paper. Policy Sciences Center, Florida State University.
- Lindbeck, A. (1997) "The Swedish Experiment." *Journal of Economic Literature* 35 (September): 1273-1319.
- Nickell, S. (1997) "Unemployment and Labor Market Rigidities: Europe versus North America." *Journal of Economic Perspectives* 11(3): 55-74.
- Norton, S.W. (1998) "Poverty, Property Rights, and Human Well-Being: A Cross-National Study." *Cato Journal* 18(2): 233-45.
- OECD (1997) *Economic Outlook*. Paris: OECD.
- Siebert, H. (1997) "Labor Market Rigidities: At the Root of the Unemployment in Europe." *Journal of Economic Perspectives* 11(3): 37-54.
- UNDP (1997) *Human Development Report 1997*. New York: Oxford University Press.
- Wallich, H. (1960) *The Cost of Freedom*. New York: Harper.
- World Bank (1996) *World Bank Development Report 1996*. New York: Oxford University Press.

BOOK REVIEWS

The Wealth and Poverty of Nations: Why Some Are So Rich and Some So Poor

David S. Landes

New York: Norton, 1998, 650 pp.

David Landes is the doyen of the “technologist” school of economic historians. His brilliant *Unbound Prometheus* still remains the best book to understand the technological and scientific mainsprings of the Industrial Revolution. While that book was more concerned with why the technological revolution occurred in Britain and not in other parts of Europe, his new book, concerned again with explaining the European Miracle, is more global.

The Wealth and Poverty of Nations is filled with much detail and innumerable memorable anecdotes. My favorite is the one he relates about the aftermath of Chernobyl. A farmer is selling “apples under a big sign, APPLES FROM CHERNOBYL. ‘You must be mad,’ says a passerby. ‘No one wants to buy apples from Chernobyl.’ ‘Sure they do,’ says the vendor. ‘Some people buy them for their mother-in-law, others for their wife.’ (And maybe others for their husband)” (p. 498).

There is a wealth of learning lightly displayed in the book, though I did find his discussion of many Third World countries a trifle superficial. He is also not impressed much by economics. There are some alarming passages showing a lack of understanding of the modern theory of trade and development, and also of the economics of developing countries.

At the end of the book, moreover, I was left feeling that Landes had still not provided a convincing answer to the question he set himself to answer as summarized by the subtitle of the book. He is too subtle a historian to give a purely unicausal explanation of the rise of the West—even though, given the amount of space devoted to it, his heart is clearly in the purely “technological” explanations. He summarizes the accepted differences between the West and the Rest, which led to the former’s dominance. Among the more important are the European states system that limited predation by the state and led to growing security of property rights, and the inquisitive Greek spirit that led to the routinization of science and cumulative technological advance. But, as the example of

India shows, with its decentralized states system under an overarching cultural unity similar to the world of Western Christendom, the first of those aspects could not have been decisive either. There were, thus, greater similarities between the great Eurasian civilizations, say, at the end of the Roman Empire. So this raises the essential questions (which Landes never even asks): Why and when did the West diverge radically from its cousins?

I should at this stage express an interest, as I dealt with those questions in my Ohlin lectures (Lal 1998), and (fortunately!) came to very different conclusions from Landes. His rather unsatisfactory answer to the first question is that cultural differences account for the divergence. But nowhere does he undertake any serious discussion of what he understands by “culture” and what those differences were and how they arose.

There are two reasons it seems to me for these lacunae. Like many historians of the modern world he tends to diminish the contribution of the Middle Ages. But as numerous medieval historians have noted, the crucial breakthrough for the West came in the High Middle Ages. Second, and crucially, as is also true of most economists, Landes is a materialist and does not consider the influence of what I term “cosmological beliefs”—how, in Plato’s words, “one should live”—as contrasted with material beliefs which determine different ways of making a living. He is thus led to put the cart before the horse. Rightly convinced about the importance of cultural differences, he swallows Max Weber’s thesis about the Protestant ethic wholesale. His purported rebuttal of the severe criticism the Weber thesis has met is very weak and flounders on the most elementary fact that should concern a historian: dates. For instance, as John Hicks (1969: 78–79) noted, an essential element in the rise of capitalism was “the appearance of banking, as a regular activity. This began to happen long before the Reformation; in so far as the ‘Protestant Ethic’ had anything to do with it, it was practice that made the Ethic, not the other way round.”

However, Weber’s intuition that the rise of the West was due to a divergence in its cosmological beliefs from the other Eurasian civilizations is, I believe, correct. He just got his dates wrong! This divergence in cosmological beliefs, I argued in my Ohlin lectures, was the result of two historically contingent events—the twin Papal revolutions of Pope Gregory the Great concerning the family in the 6th century and of Pope Gregory VII concerning the law in the 11th century. This is not the place to flesh out that story. What I would like to emphasize, though, is that one cannot explain the rise of the West by ignoring the history of ideas. That is the big hole in this book, and Landes is left with yet another “black box”—culture—as the reason for the millennial dominance of the West.

These critical remarks should not, however, deter readers from reading what is an immensely readable, witty, and learned account of the differing technological histories of the world. Readers, however, are unlikely to

find a convincing answer to the question of why wealth and poverty differ among nations, nor to the even more vital question of why some of the poor are becoming rich and what the others have to do to follow.

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References

- Hicks, J.R. (1969) *Theory of Economic History*. Oxford: Oxford University Press.
Lal, D. (1998) *Unintended Consequences: The Impact of Factor Endowments, Culture and Politics on Long-Run Economic Performance*. Cambridge, Mass.: MIT Press.

The Cultural Foundations of Economic Development: Urban Female Entrepreneurship in Ghana

Emily Chamlee-Wright

London and New York: Routledge, 1997, 204 pp.

According to one United Nations report, 70 percent of the world's poor people are women. Thus, an important way to improve the life of the poor would be to empower women. *The Cultural Foundations of Economic Development: Urban Female Entrepreneurship in Ghana* describes the contributions and limitations of women in the development of markets.

The book radiates when the author writes about the market women of Ghana. She writes about them enough to make this a terrific book, well worth the time of any student of economic development. But it suffers a bit from the tension between the author's desire to make specific points about Ghana and her desire to make abstract points about theory, and even more abstract points about methodology.

The first chapter of the book deals with theories of economic development and points out the contributions of the Austrian school. Austrian theories of entrepreneurship "focus our attention squarely on the source of economic development—individual entrepreneurs in the market context—which is missed in mainstream economic thought" (p. 2). By bringing culture into the analysis, the Austrian school helps us to understand how "knowledge generated, transmitted, and used in the market process extends to all social processes, including cultural evolution and the ways in which culture establishes the foundations for economic development" (p. 2).

Chamlee-Wright frames her argument as part of a discussion about methodology backed with evidence from Ghana, rather than as a controversial discussion over Ghana's experience that has some interesting wider implications. She provides many details of the failure of Ghana's development policies under Nkrumah but does not discuss at length how those

policies in fact undermined the indigenous economic culture's potential for development. For a reader more interested in development experience and ideas than in academic economic matters, this weakens the book. But given Chamlee-Wright's career choice to explore the academic jungle, she is probably wise to devote some time to manufacturing these intellectual fly swatters.

But readers interested in learning about Ghana will rejoice once the flies have been swatted and the author settles down to the task of digging up the treasures she has found. In fact, the impatient reader may profit by reading the chapters roughly in reverse order, beginning with the market participant profiles in Chapter 5. There we find concrete and compelling news of the strengths and weaknesses of Ghana's informal market economy. Questions raised in those stories are clarified in Chapter 4, where various indigenous credit institutions are explained; in Chapter 3, which examines indigenous methods of conflict resolution; and in Chapter 1, which contains historical summaries.

Chamlee-Wright makes much of the new institutionalist ideas about the importance of reliable property rights and enforceable contracts. In her view, the formal sector has squeezed the informal sector out by taxing, confiscating, banning, and regulating it. In China, under the communists, a similar conflict has existed between formal rules and informal ways, but in that case informal institutions have triumphed and have forced the formal institutions to conform to them and acknowledge their influence (see Zhou 1996).

The book is feminist in perhaps the best sense, because the author treats women's stories as important, worthwhile and, most of all, in a compelling fashion. She does not dwell on the hardship these women face; rather, she makes that hardship meaningful by showing its importance. That hardship is the hardship of the nation of Ghana, and until the self-destructive policies of the Ghanaian government lose their force, the hardship shall continue. Ghana's opportunity lies in removing the obstacles that stand before the market women and allowing them to save themselves and their country.

By focusing on the role of women in the marketplace, Chamlee-Wright emphasizes the importance of the informal sector in economic development. The informal sector is in fact the only sector of the economy available for most African women. As they are in many other developing nations, women in Ghana are standing at the frontline for market creation while fighting against formal constraints (state interventions and regulations). Since it is difficult to gather statistics about the informal sector, women's role in market creation and in economic development is often invisible (see Waring 1990). Although feminist scholars have alerted people to the invisibility of working women, they tend to ignore women's contributions to the market creation. Chamlee-Wright's book fills this gap, thus making women's work visible. She argues that "In the West African context, market trading has long been considered women's work,

and this role only became more entrenched in the colonial period. . . . Today, anywhere from 70 to 83 percent of market trading in the southern urban areas is conducted by women" (p. 16).

There is still plenty of ground to cover, but students of economic development and women studies will gain enough to hope for more to come by reading this book.

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References

- Zhou, K.X. (1996) *How the Farmers Changed China: Power of the People*. Boulder, Colo.: Westview Press.
Waring, M. (1990) *If Women Counted, A New Feminist Economics*. San Francisco: Harper.

Private Truths, Public Lies: The Social Consequences of Preference Falsification

Timur Kuran

Harvard University Press, 1995, 423 pp.

Libertarians have a pretty consistent prescription for public policy, and they claim that that prescription would do much good. The question they need to answer is: Why don't others see the light? Some would say that there is no light to see; the prescription isn't so great. Another response is to say that general enlightenment is obstructed by a variety of social forces, including the process of public opinion.

Pathologies of public opinion—be they the inert persistence of despised regimes or wild swings in public opinion—are elegantly explained in terms of preference falsification in Timur Kuran's book (recently released in a paperback edition). Kuran distinguishes between an individual's private preference on an issue and the individual's public preference—that is, the position the individual publicly displays. Individuals often display positions or attitudes that they do not really favor. Or they may remain mute, refraining from displaying positions on issues they really feel strongly about. Either way, the individual is said to falsify his preference.

An individual's daily milieu may sustain beliefs and attitudes quite at variance with his private preferences. To get along he must go along. In settings where one is expected to take a position on public issues or ideas—settings such as government agencies or academia—preference falsification is common. These settings breed hypocrisy, apparatchism, and cynicism. The power of Kuran's ideas derives from the properties of self-reinforcing systems. Just as a canoe has two equilibrium positions, upright and tipped over, the public-opinion process has multiple equilibria.

Suppose people reflect on an issue such as affirmative action. There are many reasons an individual might feign support for it or, at least,

conceal opposition. When you expect all your colleagues to support affirmative action, you have the incentive to support it (or not oppose it). When you expect all your colleagues to oppose affirmative action, you oppose it. Both states of opinion can prevail and sustain themselves. Kuran's theory shows how individuals form their preferences by taking into account the sources of their opinions as well as the opinions others have of them. When everyone expects everyone else to reconcile himself to the fact that the giant social canoe is tipped over, no one makes an individual effort to right the canoe.

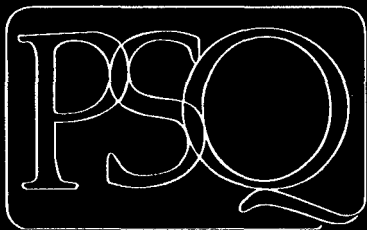
Kuran's ideas do not point to a singular prediction of how public opinion evolves. Rather, the ideas are used to explain a variety of observed events, including events quite opposite in character. Kuran provides a framework within which very different specific events may be suitably explained.

For example, the public acquiescence to a "feel-good" policy like affirmative action can be explained as follows. A few self-righteous activists promote the policy. Although most people oppose it, the individual incentive may be to go along with it—to avoid having to explain why one really is not a racist. Public preferences show strong support for the policy, even though most people oppose it. Over time, however, the state of private preferences is drawn out, delicately at first by a few brave souls (Shelby Steele comes to mind). Once a new awareness develops and reaches a new tipping point, the previous hazards of telling the truth fall away. One may finally speak out against affirmative action.

The most convincing element of Kuran's thinking is how it fits the rapid change in public opinion we sometimes observe. Once you have turned the canoe far enough, it rapidly rights itself. Once the expectations that had policed public preferences get stripped away, a policy like affirmative action falls like a house of cards. Kuran applies his theory convincingly to political revolutions throughout the world, as well as to affirmative action. His key insight is that a rapid change in public opinion does not represent a rapid change in opinion; it merely reflects a rapid change in the public display. (Remember how the soldiers reacted when Dorothy melted the Wicked Witch?)

Besides offering theoretical power, the book makes for graceful reading and deep thinking about social processes. Kuran writes earnestly, interested in advancing the social good, not some narrow academic craft. His discussion indicates an abiding concern with achieving a society that appreciates outspoken dialogue, tolerates nonconformity and eccentric deviance, and respects the sanctity and subtlety of individual opinion. Anybody seeking to explain why bad policies succeed and persist ought to read the book.

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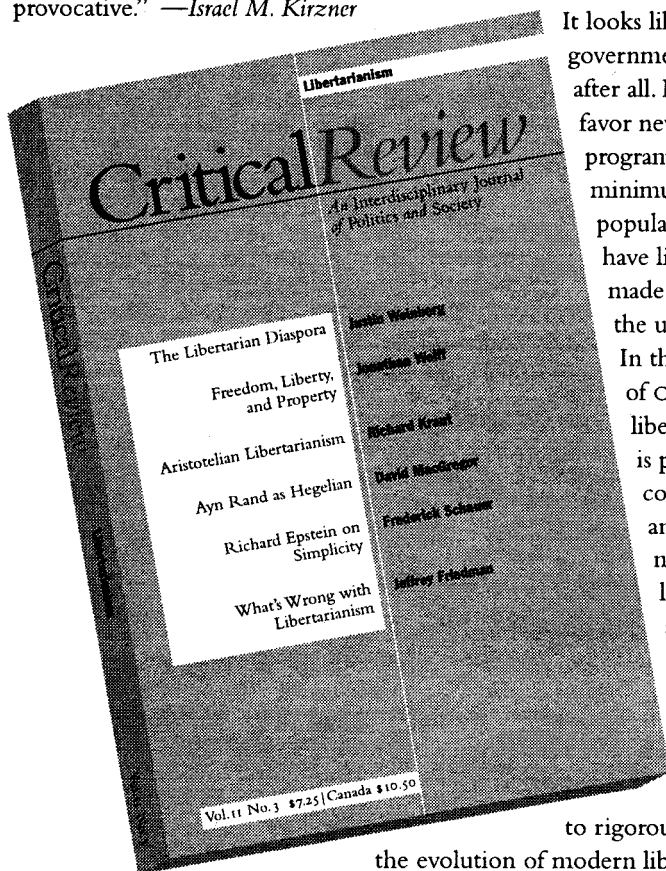
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—Thomas Jefferson

“Letter to Kercheval,” Monticello,
July 12, 1816.